



AGREEMENT NO: 30-072853 SALE NAME: FIDGET

**AUCTION:** 

May 24, 2002 starting at 10:00 a.m.,

Central Region Office, Chehalis, WA

**COUNTY:** Thurston

**SALE LOCATION:** 

Sale located approximately 18 miles west of Olympia

PRODUCTS SOLD

All timber, except as described in Schedule L, bounded by sale area boundary tags; all AND SALE AREA:

timber bounded by right-of-way boundary tags on parts of Sections 29, 30, and 32 in

Township 18 North, Range 3 West, W.M., containing 74 acres, more or less.

#### ESTIMATED SALE VOLUMES AND QUALITY:

	Ave	Ring	Total	Grades By Percent
Species	DBH	Count	MBF	1P 2P 3P SM 1S 2S 3S 4S UT
Douglas fir	22	6	1,989	82 17 1
Hemlock	15	7	288	67 27 6
Red cedar	14.4		167	5 13 47 35
White fir	13		138	84 16

Sale Total 2,582

**MINIMUM BID:** 

\$726,000.00

**BID METHOD:** 

Sealed Bids

**PERFORMANCE** 

SECURITY:

\$100,000.00

**SALE TYPE:** 

Lump Sum

**EXPIRATION DATE:** 

September 30, 2004

**ALLOCATION:** 

**Export Restricted** 

**BID DEPOSIT:** 

\$72,600.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised

price.

HARVEST METHOD: Cable and shovel logging methods. Shovel logging shall be in accordance with Shovel Logging Specifications on file at the region office. Lead end suspension required on all cable settings. Yarding shall be suspended when soil rutting exceeds four (4) inches as measured from natural ground line. Any disturbance greater than that mentioned above shall immediately be water barred by hand, grass seeded, and yarding suspended until such time that the Contract Administrator can be shown that future yarding disturbance(s) will be within contract requirements. Shovel yarding will not be permitted from September 30 to May 1 unless authorized in writing by the Contract Administrator to prevent soil damage and erosion.

**ROADS:** 

36.58 stations of required construction. 14.47 stations of required reconstruction. 130.13 stations of pre-haul maintenance as described in the Road Plan. 9.15 stations of paving as described in the Road plan. Rock for this sale may be obtained from the State's Perry Creek Quarry located in Section 15, Township 18 North, Range 03 West, W.M. Road construction will not be permitted from September 30 to May 1 unless authorized in writing by the Contract Administrator to prevent soil damage and erosion.

#### ACREAGE DETERMINATION

**CRUISE METHOD:** 

Sale acreage determined by traverse. Error of closure: 1:176. See Pre-Cruise and Cruise

Narratives.

**FEES:** 

\$23,238 with \$2,320 due on day of sale. In addition, a charge of \$34,210 is due on day of

sale. This is an additional payment to the bid price.

**SPECIAL REMARKS:** There is a locked gate on this sale. Keys may be obtained from the region office. Purchaser assumes responsibility for any county road use permits and for all costs associated with permits and extra maintenance or repair levied by a county for any county road used by the Purchaser. Any and/or all operation(s) of this sale may be temporarily suspended when, in the opinion of the Contract Administrator, there is the possibility of sediment being delivered to any live water.

#### TIMBER SALE MAP

**SALE NAME:** 

**FIDGET** 

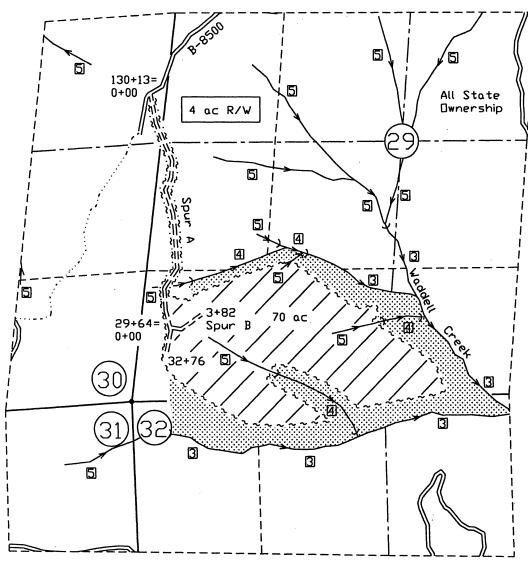
**AGREEMENT NO.: 30-072853** 

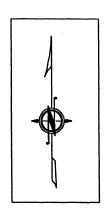
TRUST(S):

Forest Board Repayment, Forest Board Transfer

**REGION:** COUNTY(S): Central Thurston

TOWNSHIP 18 NORTH, RANGE 03 WEST, W.M.



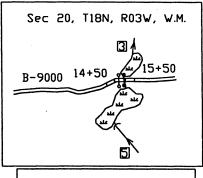


SCALE: 1" = 1,000' Drawn By: JAD Date: April 2, 2001

Trust: 01, 42 Volume: 2,582 Mbf Acres: 74 Elev: 770-1,570 feet

Feet 500 1000 0 100

**LEGEND** Sale Area Sale Area Boundary Tags Right-of-Way Boundary Tags Existing Road Required Construction Required Reconstruction Gate Gate (to be installed) Rock Source Recreation Trail Stream Water Type 4 Monument Corner Wetland Riparian Management Zone



Sec 21, T18N, R03W, W.M. 4)//B-8000 B-8000 B-8300 69+18 67+86 (5)

There are scattered leave tree clumps bounded by leave tree area boundary tags.

See Road Plan for pre-haul maintenance and paving requirements.

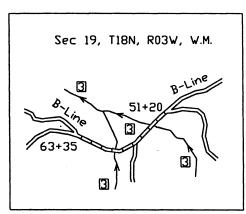
NOTE: 0+00 B-Line is the

junction of the B-Line and SR 8.

NDTE: 0+00 B-9000 is 8+01 B-Line.

NDTE: 0+00 B-8000 is 20+53 B-Line.

NDTE: 0+00 B-8500 is 168+96 B-8000.



SALE NAME:

FIDGET

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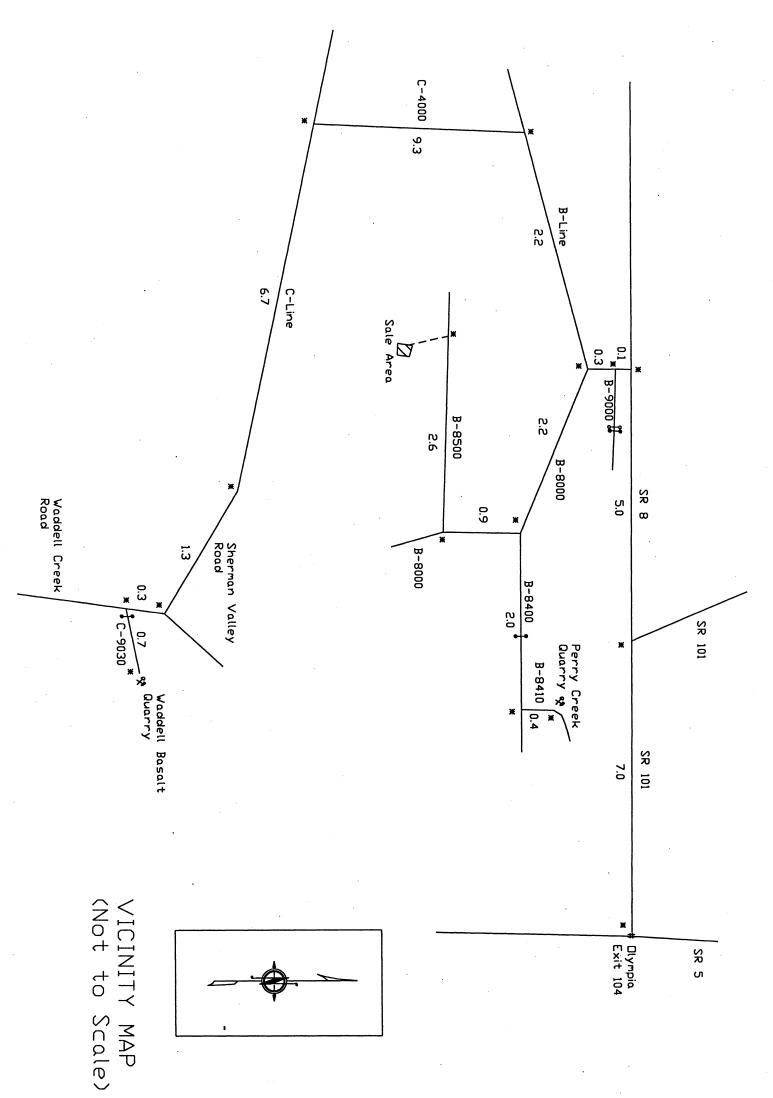
TRUST(S):

Forest Board Repayment, Forest Board Transfer

REGION: COUNTY(S):

Central

Thurston



#### STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

## BILL OF SALE AND CONTRACT FOR FOREST PRODUCTS

**Export Restricted Lump Sum AGREEMENT NO. 30-072853** 

**SALE NAME: FIDGET** 

THE STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES, HEREINAFTER ACTING SOLEY, IN ITS PROPRIETARY CAPACITY, STATE, AND PURCHASER, AGREE AS FOLLOWS:

Section G: General Terms
G-010 Products Sold and Sale Area

Purchaser was the successful bidder on May 24, 2002 and the sale was confirmed on \_\_\_\_\_\_\_. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase, cut, and remove the following forest products: All timber, except as described in Schedule L, bounded by sale area boundary tags; all timber bounded by right-of-way boundary tags, located on approximately 74 acres on parts of Sections 29, 30, and 32 in Township 18 North, Range 03 West, W.M., in Thurston County as shown on the attached timber sale map and as designated on the sale area. Timber purchased under a contract that is designated as export restricted shall not be exported until processed. Timber purchased under a contract that is designated as exportable may be exported prior to processing.

#### G-020 Inspection By Purchaser

Purchaser hereby warrants to the State that they have had an opportunity to fully inspect the sale area and the forest products being sold. Purchaser further warrants to the State that they enter this contract based solely upon their own judgment of the value of the forest products, formed after their own examination and inspection of both the timber sale area and the forest products being sold. Purchaser also warrants to the State that they enter this contract without any reliance upon the volume estimates, acreage estimates, appraisals, pre-bid documentation, or any other representations by the State Department of Natural Resources.

G-025 Schedules

The following schedules are attached and are hereby incorporated by reference:

Schedule

Title

L

HARVESTING SPECIFICATIONS

G-031 Contract Term

Purchaser shall complete all contract required work prior to September 30, 2004.

G-040 Contract Term Adjustment - No Payment

Purchaser may request an adjustment in the contract term. Claim must be submitted in writing, must be received by the State within 30 days after the start of interruption or delay, and must indicate the actual or anticipated length of interruption or delay. The

State may grant an adjustment without charge only if the cause for contract term adjustment is beyond Purchaser's control. The cause must be one of the following and the adjustment may be granted only if operations or planned operations under this contract are actually interrupted or delayed:

- a. road and bridge failures which deny access;
- b. access road closures imposed by road owner;
- c. excessive suspensions as provided in clause G-220;
- d. regulatory actions not arising from Purchaser's failure to comply with this contract which will prevent timber harvest for a period less than 6 months.

#### G-051 Contract Term Extension - Payment

Extensions of this contract term may be granted only if, in the judgment of the State, Purchaser is acting in good faith and is endeavoring to remove the forest products conveyed. The term of this contract may be extended for a reasonable time by the State if all of the following conditions are satisfied:

- a. A written request for extension of the contract term must be received prior to the expiration date of the contract.
- b. Completion of all required roads and compliance with all contract and regulatory requirements.
- c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the total contract price.

For the second extension, not to exceed 1 year, payment of at least 90 percent of the total contract price.

The payments shall not include the initial deposit which shall be held according to the provisions of RCW 79.01.132.

- d. Payment of an amount based on 12 percent interest per annum on the unpaid portion of the total contract price.
  - All payments, except the initial deposit, will be deducted from the total contract price to determine the unpaid portion of the contract.
- e. Payment of \$966.85 per acre per annum for the acres on which an operating release has not been issued. In no event will this portion of the extension charge be less than \$200.00.
- f. Extension payments are non-refundable.
- G-053 Surveys Sensitive, Threatened, Endangered Species

Whenever the State determines that a survey for sensitive, threatened, or endangered species is prudent, or when the Purchaser determines a survey is prudent and the State agrees, Purchaser shall perform such surveys at Purchaser's expense and to the standards required by the State. The survey information shall be supplied to the State.

G-060 Exclusion of Warranties

The PARTIES AGREE that the IMPLIED WARRANTIES OF MERCHANTABILITY AND MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE and ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, ARE EXCLUDED from this transaction and shall not apply to the goods sold. For example, THE FOLLOWING SPECIFIC MATTERS ARE NOT WARRANTED, and are EXCLUDED from this transaction:

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."

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- c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.
- d. The VOLUME, QUALITY, OR GRADE of the forest products. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.
- e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.
- f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES, or their habitat. The State is not responsible for any interferences with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.
- g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.
- h. Items contained in any other documents prepared for or by the State.

#### G-062 Habitat Conservation Plan

The State has entered into a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) to address state trust land management issues relating to compliance with the Federal Endangered Species Act. The activities to be carried out under this contract are located within the State's HCP area and are subject to the terms and conditions of the HCP, and the Services' Incidental Take Permit Nos. 812521 and 1168 (collectively referred to as ITP), or as amended hereafter by the Services. The ITP authorizes the incidental take of certain federally listed threatened and endangered species, as specified in the ITP conditions. All HCP materials, including the ITP, are available for review at the State's Regional Offices and the administrative headquarters in Olympia, Washington.

By signing this contract, Purchaser agrees to comply with the terms and conditions of the ITP, and the HCP, which shall become terms of this contract. The State agrees to authorize the lawful activities of the Purchaser carried out pursuant to this contract, PROVIDED the Purchaser remains in compliance with the terms and conditions of both the HCP and ITP. The requirements set forth in this contract are intended to comply with the terms and conditions of the HCP and ITP. Accordingly, non-compliance with the terms and conditions of the HCP and ITP will render the authorization provided in this paragraph void, be deemed a breach of the contract and may subject the Purchaser to liability for violation of the Endangered Species Act.

Any modifications to the contract shall be proposed in writing by the Purchaser, shall continue to meet the terms and conditions of the HCP and ITP, and shall require the prior written approval of the Region Manager before taking effect.

#### G-063 Incidental Take Permit Notification Requirements

a. The Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State's Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts,

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or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. The Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances notification must occur within a 24 hour time period.

- b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, the Purchaser shall immediately notify the Contract Administrator. The Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchasers may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to the Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances notification must occur within a 24 hour time period.
- c. Purchaser shall refer to a specific ITP number, PRT-812521 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
- d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this clause must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the Timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

#### G-064 Permits

Purchaser is responsible for obtaining any permits not already obtained by the State that relate to Purchaser's operation. Forest Practice Application and Hydraulic Project Approval permits obtained by the State shall be transferred to Purchaser. Purchaser is responsible for all permits, amendments and renewals.

#### G-065 Regulatory Disclaimer

The State disclaims any responsibility for, or liability relating to, regulatory actions by any government agency, including actions pursuant to the Forest Practices Act, Ch. 76.09 RCW, that may affect the operability of the timber sale.

#### G-066 Governmental Regulatory Actions

#### a. Regulatory Risk

Except as provided in this clause, Purchaser assumes all risks associated with governmental regulatory actions, including actions taken pursuant to the Forest Practices Act, Ch. 76.09 RCW, and the Endangered Species Act, 16 U.S.C. 1531-1544 and any Habitat Conservation Plan between the Department of Natural Resources and the U.S. Fish and Wildlife Service or any other agency now in place and as may be amended, or hereafter created, that may affect the operability of the timber sale.

#### b. Increased Costs

Purchaser shall be responsible for any increased operational costs arising from any applicable foreign or domestic governmental regulation or order that does not cause contract performance to become commercially impracticable or that does not substantially frustrate the purpose of the contract. If impracticability or frustration results from Purchaser's failure to comply with this contract, Purchaser shall remain responsible for payment of the total contract price notwithstanding the impracticability or frustration.

#### c. Sale Area

When portions of the sale area become subject to a foreign or domestic governmental regulation or order that will likely prevent timber harvest for a period that will exceed six months, and Purchaser has complied with this contract, the following shall apply:

- i. If 40 percent or less of the sale area is affected by the governmental regulation or order, the State, at Purchaser's request, shall adjust the total contract price as set forth in paragraph (d) below.
- ii. If 41 percent to 74 percent of the sale area is affected by the governmental regulation or order, the State, at Purchaser's request, shall adjust the total contract price as set forth in paragraph (d) below or terminate the contract. Termination will discharge any unexecuted portion of the contract.
- iii. If 75 percent or more of the sale area is affected by the governmental regulation or order, the State reserves the right to unilaterally terminate the contract and thereby discharge any unexecuted portion thereof. If the State does not exercise this right, the State, at Purchaser's request, shall adjust the total contract price as set forth in paragraph (d) below.

#### d. Adjustment of Price

When required by clause G-066 (c), the State shall adjust the total contract price by subtracting from the total contract price an amount determined in the following manner: The State shall cause the timber sale area subject to governmental regulation or order to be surveyed. The State shall calculate the percentage of the total sale area subject to the governmental regulation or order. The State shall reduce the total contract price by that calculated percentage, notwithstanding potential variations in species, value, costs, or other items over the total sale area. The State will further reduce the total contract price by the reasonable cost of unamortized roads Purchaser was required to construct but was unable to use for removing timber. A reduction in total contract price terminates all of the Purchaser's rights to and interest in the timber on the affected sale area.

#### G-070 Limitation on Damage

In the event of a breach of any provision of this contract by the State, the exclusive remedy available to the Purchaser will be limited to a return of the initial deposit, unapplied payments, and credit for unamortized improvements made by Purchaser. The State shall not be liable for any damages, whether direct or consequential.

#### G-080 Scope of State Advice

No advice by any agent, employee, or representative of the State regarding the method or manner of performing shall constitute a representation or warranty that said method or manner or result thereof will conform to the contract or be suitable for Purchaser's purposes under the contract. Purchaser's reliance on any State advice regarding the method or manner of performance shall not relieve Purchaser of any risk or obligation under the contract. Purchaser retains the final responsibility for its operations under this contract and State shall not be liable for any injuries resulting from Purchaser's reliance on any State advice regarding the method or manner of performance.

#### G-091 Sale Area Adjustment

The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, the added forest products become a part of this contract. The State shall determine the volume added and shall calculate the increase to the total contract price using the rates set forth in clause G-101, G-102, or G-103. If the sale area is reduced, the State shall determine the volume to be reduced. The State shall calculate the reduction to the total contract price using the rates set forth in clause G-101, G-102, or G-103.

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#### G-101 Forest Products Not Designated

Any forest products not designated for removal, which must be removed in the course of operations authorized by the State, shall be approved and designated by the Contract Administrator. Added forest products become a part of this contract and the Scribner log scale volume, as defined by the Northwest Log Rules Advisory Group, shall be determined by the Contract Administrator. Added forest products shall be paid for at the following contract payment rates per Mbf Scribner log scale.

The pricing schedule has not been set for the sale.

#### G-106 Adding Naturally Damaged Forest Products

Any forest products not designated for removal that are seriously damaged by disease, insects or wind, or that may contribute seriously to the spread of insect or disease damage may be added to this sale by the State's contract administrator. Additions must be in unlogged areas of the sale and added volume shall not exceed an amount equal to 10 percent of the original advertised volume. Added forest products become a part of this contract and shall be paid for at the rate set forth in clause G-101, G-102 or G-103.

#### G-110 Title and Risk of Loss

Title to the forest products conveyed passes at confirmation of the sale. Purchaser bears the risk of loss of or damage to and has an insurable interest in the forest products in this contract from the time of confirmation of the sale of forest products. In the event of loss of or damage to the forest products after passage of title, whether the cause is foreseeable or unforeseeable, the forest products shall be paid for by Purchaser. Breach of this contract shall have no effect on this provision. Title to the forest products not removed from the sale area within the period specified in this contract shall revert to the State as provided in RCW 79.01.132.

#### G-120 Responsibility for Work

All work, equipment, and materials necessary to perform this contract shall be the responsibility of Purchaser. Any damage to improvements, except as provided in clause G-130 or unless the State issues an operating release pursuant to clause G-280, shall be repaired promptly to the satisfaction of the State and at the Purchaser's expense.

#### G-130 Exceptions

Exceptions to Purchaser's responsibility in clause G-120 shall be limited exclusively to the following. These exceptions shall not apply where damages occur due to Purchaser's failure to take reasonable precautions or to exercise sound forest engineering and construction practices.

- a. The State shall bear the cost to repair any existing roadway or section of required road completed to the point that an authorization to haul has been issued where such damage was not caused by Purchaser, its employees, agents, or invitees, including independent contractors. Purchaser shall accomplish repairs promptly as required by the State at an agreed price. The State may elect to accomplish repairs by means of State provided resources. This subclause (subclause "a") may only apply if subclause "b" is not in effect.
- b. The parties shall share equally the cost to repair any part of the required roads constructed under this contract which suffer catastrophic damage, except that Purchaser shall be solely responsible for the first \$5,000.00. Catastrophic damage is defined as State identified damage valued in excess of \$5,000.00, resulting from a single event caused by forces beyond the control and without the negligence of Purchaser, such as earthquakes, volcanic eruptions, landslides, and floods. Purchaser shall accomplish repairs promptly as required by the State at an agreed price. The State may elect to accomplish repairs by means of State provided resources; in which event, the Purchaser shall continue to share equally in the cost.

Nothing contained in clauses G-120 and G-130 shall be construed as relieving Purchaser of responsibility for, or damage resulting from, Purchaser's operations or negligence, nor shall Purchaser be relieved from full responsibility for making good any defective work or materials.

#### G-140 Indemnity

To the fullest extent permitted by law, Purchaser shall indemnify, defend and hold harmless State, agencies of State and all officials, agents and employees of State, from and against all claims arising out of or resulting from the performance of the contract. "Claim" as used in this contract means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable for bodily injury, sickness, disease or death, or injury to or destruction of tangible property including loss of use resulting therefrom. Purchasers' obligation to indemnify, defend, and hold harmless includes any claim by Purchasers' agents, employees, representatives, or any subcontractor or its employees. Purchaser expressly agrees to indemnify, defend, and hold harmless State for any claim arising out of or incident to Purchasers' or any subcontractors' performance or failure to perform the contract. Purchasers' obligation to indemnify, defend, and hold harmless State shall not be eliminated or reduced by any actual or alleged concurrent negligence of State or its agents, agencies, employees and officials. Purchaser waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

#### G-150 Insurance

Purchaser shall, at all times during the term of this contract at its cost and expense, buy and maintain insurance of the types and amounts listed below. Failure to buy and maintain the required insurance may result in a breach and/or termination of the contract at State's option. State may also suspend Purchaser operations until required insurance has been secured.

All insurance and surety bonds should be issued by companies admitted to do business within the State of Washington and have a rating of A-, Class VII or better in the most recently published edition of Best's Reports. Any exception shall be reviewed and approved by the department's risk manager before the insurance coverage is accepted. If an insurer is not admitted, all insurance policies and procedures for issuing the insurance policies must comply with Chapter 48.15 RCW and 284-15 WAC.

The State of Washington, Department of Natural Resources region office of sale origin shall be provided written notice before cancellation or non-renewal of any insurance referred to therein, in accord with the following specifications:

- 1. Insurers subject to Chapter 48.18 RCW (admitted and regulated by the Insurance Commissioner): The insurer shall give the State 45 days advance notice of cancellation or non-renewal. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.
- 2. Insurers subject to Chapter 48.15 RCW (surplus lines): The State shall be given 20 days advance notice of cancellation. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.

Before starting work, Purchaser shall furnish State of Washington, Department of Natural Resources with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements specified in the contract.

Purchaser shall include all subcontractors as insured under all required insurance policies, or shall furnish separate certificates of insurance and endorsements for each subcontractor. Subcontractor(s) must comply fully with all insurance requirements stated herein. Failure of subcontractor(s) to comply with insurance requirements does not limit Purchaser's liability or responsibility.

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The State of Washington, Department of Natural Resources, its elected and appointed officials, agents and employees shall be named as an additional insured on all general liability, excess, umbrella, and property insurance policies.

All insurance provided in compliance with this contract shall be primary as to any other insurance or self-insurance programs afforded to or maintained by State. Purchaser waives all rights against State for recovery of damages to the extent these damages are covered by general liability or umbrella insurance maintained pursuant to this contract.

If Purchaser is self-insured, evidence of its status as a self-insured entity shall be provided to State. If requested by State, Purchaser must describe its financial condition and the self-insured funding mechanism.

By requiring insurance herein, State does not represent that coverage and limits will be adequate to protect Purchaser, and such coverage and limits shall not limit Purchaser's liability under the indemnities and reimbursements granted to State in this contract.

The limits of insurance, which may be increased by State of Washington, Department of Natural Resources, as deemed necessary, shall not be less than as follows:

Commercial General Liability (CGL) Insurance. Purchaser shall maintain general liability (CGL) insurance, and, if necessary, commercial umbrella insurance with a limit of not less than \$300,000.00 per each occurrence. If such CGL insurance contains aggregate limits, the General Aggregate limit shall be at least twice the "each occurrence" limit. CGL insurance shall have products-completed operations aggregate limit of at least two times the "each occurrence" limit.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 (or a substitute form providing equivalent coverage). All insurance shall cover liability arising out of premises, operations, independent contractors, products completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another party assumed in a business contract), and contain separation of insured (cross liability) condition.

Employer's Liability "Stop Gap" Insurance. Purchaser shall buy employers liability insurance, and, if necessary, commercial umbrella liability insurance with limits not less than \$1,000,000.00 each accident for bodily injury by accident or \$1,000,000.00 each employee for bodily injury by disease.

Workers' Compensation Coverage. Purchaser shall comply with all State of Washington workers' compensation statutes and regulations. Workers' compensation coverage shall be provided for all employees of Purchaser and employees of any subcontractor or sub-subcontractor. Coverage shall include bodily injury (including death) by accident or disease, which exists out of or in connection with the performance of this contract. Except as prohibited by law, Purchaser waives all rights of subrogation against State for recovery of damages to the extent they are covered by workers' compensation, employer's liability, commercial general liability, or commercial umbrella liability insurance.

If Purchaser, subcontractor or sub-subcontractor fails to comply with all State of Washington workers' compensation statutes and regulations and State incurs fines or is required by law to provide benefits to or obtain coverage for such employees, Purchaser shall indemnify State. Indemnity shall include all fines, payment of benefits to Purchaser or subcontractor employees, or their heirs or legal representatives, and the cost of effecting coverage on behalf of such employees.

Business Auto Policy (BAP). Purchaser shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit not less than \$250,000.00 per accident. Such insurance shall cover liability arising out of "Any Auto". Business auto coverage shall be written on ISO form CA 00 01, or substitute liability form providing equivalent coverage. If necessary the policy shall be endorsed to provide contractual liability coverage and cover a "covered pollution cost or

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expense" as provided in the 1990 or later editions of CA 00 01. Purchaser waives all rights against State for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

#### G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Chehalis, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive, modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

Purchaser is required to have a person on site during all operations who is authorized to receive instructions and notices from the State. Purchaser shall inform the State in writing who is authorized to receive instructions and notices from the State, and any limits to this person's authority.

#### G-170 Assignment and Delegation

No rights or interest in this contract shall be assigned by Purchaser without prior written permission of the State. Any attempted assignment shall be void and ineffective for all purposes unless made in conformity with this paragraph. Purchaser may perform any duty through a delegate, but Purchaser is not thereby relieved of any duty to perform or any liability. Any assignee or delegate shall be bound by the terms of the contract in the same manner as the Purchaser.

#### G-180 Modifications

Waivers, modifications, or amendments of the terms of this contract must be in writing signed by Purchaser and the State.

#### G-190 Contract Complete

This contract is the final expression of the Parties' agreement. There are no understandings, agreements, or representations, expressed or implied, which are not specified in this contract.

#### G-200 Notice

Notices required to be given under the following clauses shall be in writing and shall be delivered to the Purchaser's authorized agent or sent by certified mail to the Purchaser's post office address:

G-210 Violation of Contract G-220 State Suspends Operations

All other notices required to be given under this contract shall be in writing and delivered to the authorized agent or mailed to the Party's post office address. Purchaser agrees to notify the State of any change of address.

#### G-210 Violation of Contract

- a. If Purchaser violates any provision of this contract, the contract administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, the Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.
- b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.

- c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
- d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

#### G-220 State Suspends Operation

The Contract Administrator may suspend any operation of Purchaser under this contract when the State is suffering, or there is a reasonable expectation the State will suffer environmental, monetary, or other damage if the operation is allowed to continue.

Purchaser shall be in breach of this contract if the operation continues after the suspension notice or if the operation resumes without prior approval and notice from the Contract Administrator.

Purchaser may request a modification of a suspension within 30 days of the start of suspension through the dispute resolution process in clause G-240. If this process results in a finding that the suspension exceeded the time reasonably necessary to stop or prevent damage to the State, Purchaser is entitled to request a contract term adjustment under clause G-040.

If it reasonably appears that the damage that the State is suffering, or can reasonably be expected to suffer if the operation is allowed to continue, will prevent harvest for a period that will exceed 6 months, and the Purchaser has complied with this contract, the provisions of clause G-066 shall govern just as if the harvest was prevented by an applicable foreign or domestic governmental regulation or order.

#### G-230 Unauthorized Activity

Any cutting, removal, or damage of forest products by Purchaser, its employees, agents, or invitees, including independent contractors, in a manner inconsistent with the terms of this contract or State law, is unauthorized. Such activity may subject Purchaser to liability for triple the value of said forest products under RCW 79.01.756 or RCW 79.01.760 and may result in prosecution under RCW 79.01.752 or other applicable statutes.

#### G-240 Dispute Resolution

The following procedures apply in the event of a dispute regarding interpretation or administration of this contract and the parties agree that these procedures must be followed before a lawsuit can be initiated.

- a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.
- b. The Region Manager will issue a written decision on Purchaser's request within ten business days.
- c. Within ten business days of receipt of the Region Manager's decision, Purchaser may make a written request for resolution to the Department of Natural Resources Land Steward.
- d. Unless otherwise agreed, a conference will be held by the Department's Land Steward within 30 calendar days of the receipt of Purchaser's request for review of the Region Manager's written decision. Purchaser and the Region Manager will have an opportunity to present their positions. The Department's Land Steward will issue a decision within a reasonable time of being presented with both Parties' positions.

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#### G-250 Compliance with All Laws

Purchaser shall comply with all applicable statutes, regulations and laws, including, but not limited to, the applicable requirements of WAC 240-15-015 (relating to prohibitions on export and substitution), WAC 240-15-025 (relating to requirements), and WAC 240-15-030 (relating to enforcement).

#### G-260 Venue

This contract shall be governed by the laws of the State of Washington. In the event of a lawsuit involving this contract, venue shall be proper only in Thurston County Superior Court.

#### G-270 Equipment Left on State Land

All equipment owned or in the possession of Purchaser, its employees, agents, or invitees, including independent contractors, shall be removed from the sale area and other State land by the termination date of this contract. Equipment remaining unclaimed on State land 60 days after the expiration of the contract period is subject to disposition as provided by law. Purchaser shall pay to the State all costs of moving, storing, and disposing of such equipment. The State shall not be responsible for any damages to or loss of the equipment or damage caused by the moving, storing or disposal of the equipment.

#### G-280 Operating Release

An operating release is a written document, signed by the State and the Purchaser, indicating that the Purchaser has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Purchaser and State may agree to an operating release for this sale, or portion of this sale, prior to the contract expiration, when all contract requirements pertaining to the release area have been satisfactorily completed. Upon issuance of a release, Purchaser's right to cut and remove forest products on the released area will terminate.

#### G-310 Road Use Authorization

Purchaser is authorized to use the following State roads, and roads for which the State has acquired easements and road use permits; the B Line, B-9000, B-8000, B-8400, B-8410, B-8500, Spur A, Spur B, C-4000, C Line, and C-9030 Roads. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

#### G-330 Pre-work Conference

Purchaser shall arrange with the Contract Administrator to review this contract and to examine the sale area before beginning any operations. A plan of operations shall be developed and agreed upon by the Contract Administrator and Purchaser before beginning any operations. To the extent that the plan of operations is inconsistent with the contract, the terms of the contract shall prevail. State's acceptance and approval of Purchaser's plan of operations shall not be construed as any statement or warranty that the plan of operations is adequate for Purchaser's purposes or complies with applicable laws.

#### G-340 Preservation of Markers

Any legal land subdivision survey corners and witness objects are to be preserved. If such are destroyed or disturbed, Purchaser shall have a licensed land surveyor reestablish them.

#### G-360 Road Use Reservation

The State shall have the right to use, without charge, all existing roads and any road constructed or reconstructed on State lands by Purchaser under this contract. The State may extend such rights to others. If the State grants such rights to others, the State shall require performance or payment, as directed by the State, for their proportionate share of maintenance based on their use.

#### G-370 Blocking Roads

Purchaser shall not block the B Line, B-9000, B-8000, and B-8500 Roads unless authority is granted in writing by the Contract Administrator.

#### G-380 Road Easement and Road Use Permit Requirements

Purchaser agrees to comply with the terms and conditions of the attached:

Easement entered into between the State and Al Parks and Lois A. Parks, dated August 9, 1967. Easement entered into between the State and Seattle Trust and Savings Bank, dated April 24, 1967.

#### G-430 Open Fires

Purchaser shall not set, or allow to be set by Purchaser's employees, agents, invitees and independent contractors, any open fire at any time of the year without first obtaining permission, in writing, from the Contract Administrator.

#### G-450 Encumbrances

This contract and Purchaser's activities are subject to the following:

#### **DATA MISSING**

#### Section P: Payments and Securities

#### P-010 Initial Deposit

Purchaser paid \$0.00 initial deposit, which will be maintained pursuant to RCW 79.01.132.

#### P-020 Payment for Forest Products

Purchaser agrees to pay the total contract price of \$0.00. The total contract price consists of a \$0.00 contract bid price plus \$57,448.00in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause.

#### P-040 Guarantee of Payment

Purchaser will pay for forest products prior to cutting or will guarantee payment by posting an approved payment security. The amount of cash or payment security shall be determined by the State and shall equal or exceed the value of the cutting proposed by Purchaser.

#### P-050 Billing Procedure

The State will compute and forward to Purchaser statements of charges provided for in the contract. The Purchaser shall deliver payment to the State on or before the date shown on the billing statement.

#### P-080 Payment Account Refund

Advance payments made under P-040 remaining on account above the value for the charges shall be returned to Purchaser within 30 days following the final report of charges. Refunds not made within the 30 day period will accrue interest at the interest rate, as established by WAC 332-100-030, computed on a daily basis until paid.

#### P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$0.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash or savings account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.01.132. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

#### P-100 Performance Security Reduction

The State may reduce the performance security after an operating release has been issued if the State determines that adequate security exists for any remaining obligations of Purchaser.

#### Section H: Harvesting Operations

H-010 Cutting and Yarding Schedule

Shovel yarding will not be permitted from September 30 to May 1 unless authorized in writing by the Contract Administrator.

H-035 Fall Trees Into Sale Area

Purchaser shall fall all trees into the sale area unless otherwise approved by the Contract Administrator.

H-051 Branding and Painting

Purchaser shall provide a State of Washington registered log brand unless the State agrees to furnish the brand. All purchased timber shall be branded in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All timber purchased under a contract designated as export restricted shall also be painted in a manner that meets the requirements of WAC 240-15-030(2)(a)(ii).

H-080 Snags Not to be Felled

Snags not required to be felled for safety reasons may be left standing.

H-110 Stump Height

Trees shall be cut as close to the ground as practicable. Stump height shall not exceed 12 inches in height measured on the uphill side, or 2 inches above the root collar, whichever is higher.

H-120 Harvesting Equipment

Forest products sold under this contract shall be cable and shovel logging methods unless authority to use other equipment is granted in writing by the State.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

- 1) Purchaser assumes responsibility for any county road use permits and for all costs associated with permits and extra maintenance or repair levied by a county for any county road used by the Purchaser.
- 2) Any and/or all operation(s) of this sale may be temporarily suspended when, in the opinion of the Contract Administrator, there is the possibility of sediment being delivered to any live water.

Permission to do otherwise must be granted in writing by the Contract Administrator.

H-190 Completion of Settings

Operations begun on any setting of the sale area shall be completed before any operation begins on subsequent settings unless authorized in writing by the Contract Administrator.

H-220 Protection of Residual or Adjacent Trees

Unless otherwise specified by this contract, the Contract Administrator shall identify damaged adjacent or leave trees that shall be paid for according to clause G-230.

H-230 Tops and Limbs Outside the Sale Boundary

Tops and limbs outside the sale boundary as a result of Purchaser's operation shall be removed concurrently with the yarding operation unless otherwise directed by the Contract Administrator.

H-240 Lop and Scatter

The tops of all felled trees shall be lopped and slash scattered away from leave trees.

#### H-250 Fall Non-Merchantable Stems

Within the sale area, all live stems pf hardwoods greater than two (2) inches dbh, shall be felled concurrently with felling operations. Areas of young or immature timber may be excluded from this requirement by the Contract Administrator.

#### Section C: Construction and Maintenance

#### C-040 Road Plan

Road construction and associated work provisions of the road plan for this sale dated Thursday, March 01, 2001 are hereby made a part of this contract.

#### C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own cost on the B Line Road from station 51+20 to station 63+35 until the work has been accepted by the State, B-9000 Road from station 14+50 to station 15+50 until the work has been accepted by the State, B-8000 Road from station 67+86 to station 69+18 until the work has been accepted by the State, B-8500 Road from station 0+00 to station 130+13 until the work has been accepted by the State, Spur A Road, and Spur B Road to maintain proper drainage and to keep the road surface smooth and crowned. The Spur A Road and Spur B Road shall meet the original construction specifications at contract termination.

#### C-060 Designated Road Maintainer

If required by the State, Purchaser shall perform maintenance and replacement work as directed by the State on the B Line Road from station 0+00 to station 51+20, the B Line Road from station 51+20 to station 63+35 after work has been accepted by the State, the B Line Road from station 63+35 to station to the junction with the B Line and C-4000 Roads, the B-9000 Road from station 0+00 to station 14+05, the B-9000 Road from station 14+05 to station 15+50 after work has been accepted by the State, the B-8000 Road from station 0+00 to station 67+86, the B-8000 Road from station 67+86 to station 69+18 after work has been accepted by the State, the B-8000 Road from station 69+18 to the junction of the B-8000 and B-8500 Roads, the B-8500 Road from station 0+00 to station 130+13 after work has been accepted by the State, the B-8400 Road, the C-4000 Road, the C Line, and the C-9030 Road. Purchaser shall furnish a statement in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the State's current Equipment Rate Schedule on file at the Region and Olympia offices. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

#### C-080 Landing Locations Approved Prior to Construction

Landings shall be marked by Purchaser and approved by the Contract Administrator prior to construction.

#### C-140 Water Bars

Purchaser shall, as directed by the Contract Administrator, construct water bars across haul roads, skid trails and fire trails as necessary to control soil erosion and water pollution.

#### Section S: Site Preparation and Protection

#### S-010 Fire Hazardous Conditions

Purchaser agrees to use its best efforts to minimize the risk of fire.

#### S-050 Cessation of Operations for Low Humidity

During the "closed season", when the humidity is 30 percent or lower on the sale area, all operations must cease unless authority to continue is granted by the State in writing.

#### S-060 Pump Truck or Pump Trailer

Purchaser shall provide a fully functional pump truck or pump trailer equipped to meet the specifications of WAC 332-24-005 and WAC 332-24-405 during the "closed season" or as extended by the State and shall provide trained personnel to operate this equipment on the sale area during all operating periods.

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#### S-100 Stream Cleanout

Slash or debris which enters any defined channel as a result of operations under this contract and which is identified by the Contract Administrator shall be removed and deposited in a stable position. Removal of slash or debris shall be accomplished in a manner that avoids damage to the natural stream bed and bank vegetation.

#### S-110 Resource Protection

No equipment may operate within the Riparian Management Zones unless authority is granted in writing by the Contract Administrator.

#### S-120 Stream Protection

No timber shall be felled into, across, or yarded through any defined channel

#### S-130 Refuse Disposal

a. Solid and Hazardous Waste Regulatory Compliance.

The Purchaser shall meet applicable local, state, and federal solid and hazardous waste laws and regulations concerning the handling and disposal of hazardous materials and hazardous and solid waste, including, but not limited to, Chapters 70.93, 70.95, and 70.105 RCW and Resource Conservation and Recovery Act of 1976 (RCRA) 42 USC Section 6901, et seq.

#### b. Waste Disposal.

No hazardous or solid waste shall be disposed of by abandonment, burial, or burning on state land. All wastes, including petroleum stained soil on landings or other areas, shall be removed from state land and be disposed of at a permitted solid or hazardous waste disposal facility.

#### c. Hazardous Materials Spill Prevention.

All operations shall be conducted in such a manner as to prevent the discharge of hazardous materials, including petroleum products, into water or air or onto ground.

Fuel tanks and other containers of hazardous materials shall be managed to prevent any drips, leaks or larger spills. Equipment seals, pressure lines, and other potential leak sources shall be maintained in good working condition to eliminate oil, hydraulic fluid, and other leaks.

Equipment maintenance activities, such as oil changes, shall be undertaken so that no oil or other hazardous materials reach the ground. Filters, batteries, and other equipment waste shall be deposited in barrels or otherwise temporarily stored so as to prevent the leaking of oil, acid, or other hazardous liquids onto the ground.

#### d. Spill Reporting.

The operator shall take immediate action to contain and control all spills.

Any spill that may be a threat to human health or the environment shall be reported immediately to the Department of Ecology and the Contract Administrator.

Other spills shall be reported to the Contract Administrator.

#### Section D: Damages

#### D-010 Liquidated Damages

The following clauses provide for payments by Purchaser to the State for certain breaches of the terms of this contract. These payments are agreed to as liquidated damages and not as penalties. They are reasonable estimates of anticipated harm to the State which will be caused by Purchaser's breach. These liquidated damages provisions

are agreed to by the State and Purchaser with the understanding of the difficulty of proving loss and the inconvenience or infeasibility of obtaining an adequate remedy. These liquidated damages provisions provide greater certainty for the Purchaser by allowing the Purchaser to better assess its responsibilities under the contract.

#### D-022 Failure to Remove Forest Products

The Purchaser's failure to pay for all or part of the forest products sold in this agreement prior to the expiration of the Purchaser's operating authority results in substantial injury to the State. The value of the forest products sold under this contract is difficult to determine at the date of breach. The Purchaser's failure to perform disrupts the State's management plans, the actual cost of which is difficult to assess. A resale involves additional time and expense and is not an adequate remedy. Therefore, the Purchaser agrees to pay the State as liquidated damages a sum calculated using the following formula:

LD = .35V-ID+C+A

#### Where:

- LD = Liquidated Damage value.
- V = The value is the unpaid portion of the contract bid price at the time of breach.
- ID = Initial Deposit paid at date of contract that has not been applied to timber payments.
- C = Charges assessed for contract requirements completed prior to breach of contract but not paid for.
- A = Administrative Fee = \$2,500.00.

In no event shall the liquidated damages be less than zero. Interest on the liquidated damage is owed from the date of breach until final payment, calculated using the following formula: Interest =  $r \times LD \times N$ .

#### Where:

- r = daily equivalent of an annual interest at current interest rate as established by WAC 332-100-030.
- LD = Liquidated damage value.
- N = date of breach to time of payment in days.

#### D-041 Reserve Tree Damage

a.Reserve Trees are trees required and designated for retention within the sale boundary. Purchaser shall protect Reserve Trees from being cut, damaged, or removed during operations. Damage occurs to Reserve Trees when, as a result of purchaser's operations, the Contract Administrator determines one or more of the following has occurred:

One or more trunk scars (exposing the cambuim layer) which in total exceeds 100 square inches.

The live crown is reduced by 30 percent of original crown.

One third of the circumference of the root system is damaged such that the cambium layer is exposed.

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- Removal of designated Reserve Trees from the sale area is unauthorized, and may invoke the use of the G-230 clause. Purchaser is required to leave all original, cut or damaged Reserve Trees on site.
- b.If in the course of Purchaser's operations, the Contract Administrator determines that a Reserve Tree has been cut, damaged, or removed, the Purchaser shall provide a replacement Reserve Tree of like condition, size, and species within the sale area, as approved by the Contract Administrator to satisfy Reserve Tree requirements.
- c.If the Contract Administrator determines that suitable replacement for a Reserve Tree as described in section (b) of this clause is not possible, the Purchaser agrees to pay the State as Reserve Tree liquidated damages for each Reserve Tree not replaced at the rate of \$500.00.

IN WITNESS WHEREOF, the Parties hereto have entered into this contract.

	STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES
Purchaser	Victoria Christiansen Central Regional Manager
Date:	Date:

## CORPORATE ACKNOWLEDGEMENT

STATE OF	)	
COUNTY OF	)	
	day of	, 20, before me personally
		4 1 4 - 1 4
		of the corporation ment and acknowledged said instrument to be the
and on oath states the seal affixed is	d that (he/she was) (they was the corporate seal of said	ration, for the uses and purposes therein mentioned, ere) authorized to execute said instrument and that corporation.  set my hand and affixed my official seal the day and
year first above v		oce my mana and annice my enterin cour and only and
		Notary Public in and for the State of
		My appointment expires

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#### Schedule L HARVESTING SPECIFICATIONS

- 1. All timber marked with blue paint and/or leave tree boundary tags shall not be considered as sale volume and shall be considered leave trees.
- 2. Shovel logging shall be in accordance with Shovel Logging Specifications on file at the region office.
- 3. Lead end suspension required on all cable settings.
- 4. Yarding shall be suspended when soil rutting exceeds four (4) inches as measured from natural ground line.
- 5. Any disturbance greater than that mentioned above shall immediately be water barred by hand, grass seeded, and yarding suspended until such time that the Contract Administrator can be shown that future yarding disturbance(s) will be within contract requirements.
- 6. Any and all snags cut because of safety concerns cannot be removed and must remain where they were felled.
- 7. Long butts remaining on the sale area must be dispersed as directed by the Contract Administrator.
- 8. All down timber existing on the day of sale is to remain on the sale area as close as practical to the point of origin.
- 9. Landing debris shall be piled and a fire trail two (2) feet wide shall be constructed to mineral soil around each landing as directed by the Contract Administrator.
- 10. A detailed felling and yarding plan, approved in writing by the Contract Administrator, shall be required prior to any harvest activities.
- 11. Any yarding and/or loading to any road used by the Purchaser to harvest this sale will be repaired at the Purchaser's expense as directed by the Contract Administrator.

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## PRE-CRUISE NARRATIVE

Sale Name:	Fidget	Region:	Central
App. #:	72853	District:	Black hills
Contact forester:	Jim LeJeune	Phone/ location:	(360)748.2383
Alternate contact:	Dan Smith	Phone/ location:	(360)748.2383

#### UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit #	Legal Descr. Sec/Twp/Rng	Grant	Gross acres	Net acres	Method of acreage determination (compass chain traverse, photo, declination used, etc)	Error of closure
1	29 & 32/18N/3W	01		70	laser Traverse, declination 18 E	1:176
R/W	30/18N/3W	01,42		4	laser Traverse, declination 18 E	
Total				74		

#### HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest prescription: (mark leave, take, etc)	Special management areas:	Other conditions (# leave trees, etc.)
1	Leave tree clumps are marked with yellow leave tree area tags, scattered leave trees are marked with blue paint.	500 trees spread between clumps.	700 total leave trees, of which 200 are scattered within the unit.
R/W			

#### OTHER PRE-CRUISE INFORMATION:

Unit #	Estimated Volume	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	2,860 MBF	No gates - unit off the B-8500	
R/W		No gates - unit off the B-8500	

#### REMARKS:

There is a moderate amount of brush. The unit is on steep ground.

Prepared by:	Dan Smith	
Title:	Forester 1	
cc:		

## Cruise Narrative

Sale Name:	Fidget	Region:	Central
App. #:	72853	District:	Black Hills
Lead cruiser:	Burts	Completion date:	03/22/01
Other cruisers on sale:	Duncan Kirner Graves		

#### Unit acreage specifications:

	zo dozedge opecazzono.							
Unit #	Cruised acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.					
01	70	Yes						
02	4	Yes						
Total	74							

#### Unit cruise specifications:

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/ half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of area)	Plot ratio (cruise: count)	Total number of plots
01	VP	40 F	4.5'	330x165	1 to 1	55
02	VP	40 F	4.5'	Interval	1 to 1	8
				·		

#### Sale/Cruise Description:

,	alo, olubo bobolipolon.					
Minor species cruise intensity:	Cruis	Cruise All				
Minimum cruise spec:	6" Top or 40% D.B.H.					
Avg ring count by sp:	DF =	06	WH =	07	ss =	
Leave/take tree description:	Scatt	ered Blue Leav	re			
Other conditions						

Field observa	ations:			
P Line is Adja	cent To Rain D	rop P.C.		
Prepared by:	M. Kirner	Man La	~	
Title:	Forest Cruis	ser .		

Date: 4/11/20 Page: 1

Cruise Summary - Scribner Scale

Salename: FIDGET Appl\_No: 72853 Unit No: Total Cruise

Cruiser: LB. MK. JG. DD. Cruise Date: 3/22/01 Grade Zone: WS (1) Region: Central

Acres:

74.0

Section: 29 Township: 18 North Range: 3 West , W.M.

		74.0							_										4	
		,	Averaç	ge Tree			Avera	ge Log					Total	.s					Sample	Anal
Specie	s	D4h (In)	Feet of Logs	Gross (Board		   Dib   (In)	Len (Ft)	Gross (Board		Trees	Logs	Gross Mbf	Util Mbf	Spcl Cull Mbf	Cull Mbf	Net Mbf	Spp Net Mbf		  Sample   Type	SEM
DFSGG	•	22.0	70	512	488	   13.0		195	186	4065	10665	2083	-	-	99		1989		!	7.8
DFSGD 3	3	21.0	64	350	231	12.0 	32	175	116	21	42	7	-	-	3	5		0	1	
WHG (	6	15.0	42	188	182	10.1	24	107	103	1588	2797	298	-	-	10	288	288	11		19.0
RCG 12	2	13.0	26	69	67	   7.8	20	52	51	2066	2718	142	-	-	4	138	138	5		22.2
RAG 3	6	14.4	55	150	129	8.3	26	71	61	1295	2742	194	-		27	167	167	_ 6		26.0
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A11	!	18.1	53	302	286	11.4	25	144	136	9035	18964	2724	-	-	143	2582	8)//	<b>,</b>		5.4
	-+-  P	Percent	t Tota	l Defe	:	5		Pei	r Acre:	122	256	36.8				34.9			T	

## Grade and Grant Summaries Grade Percentages Based on Species Net Graded Volume

	_		_		_			GRAD	ES									GF	RANTS	
Species		1	]	2	;	3		4	ļ .	5		6		7		8	ĺ	Ţ	3	İ
DFSG		-				-		-	T 	-		82		17		1			100	ļ
WH		-		-		-	!	-		-		67		27		6			100	
RC		•		-		-		-		-	<u> </u>			84		16			100	
RA		-		-				-		5		13		47	 	35	 	1	100	
	+		.+-		+	'	+		+		+		+		+	To	tals:		100	<del>!</del>

Date: 4/11/20 Page: 1

Cruise Summary - Scribner Scale Cruiser: LB. MK. JG. DD. Cruise Date: 3/22/01 Grade Zone: WS (1) Region: Central Section: 29 Township: 18 North Range: 3 West , W.M. Salename: FIDGET Appl\_No: 72853 Unit No: 1 Acres: 70.0

_	_					1			_	L									_	
		A	veraç	je Tree			Avera	ge Log					Total	.s					Sample	Ana.
Species	      s	D4h	Feet of Logs	Gross (Board		Dib (In)	Len (Ft)	Gross (Board		     Trees	Logs	Gross Mbf	Util Mbf	Spcl Cull Mbf	Cull Mbf	Net Mbf	Spp Net Mbf		  Sample   Type	SEM
DFSGG 4	•	21.8	69 64	502 350	479 231	   12.9   12.0		192 175	184 116	3906 21	10198 42	1960	-	-	88 3	1872 5	1877	78 0	   VP   VP	8.
	6	14.6	39	178	173	12.0     10.0		106	103	1398	2355	, 249		-	7	_	242	•	VI   VP	21.
RCG 12	2	13.0	26	69	67	   7.8	20	52	51	2054	2705	141	-	-	4	137	137	6	VP	22.
RAG 36	 6  -+-	14.6	55	152	131	8.4	26	72	62	1187	2512	180		-	24	156	156	6 -+	VP	27.
Green Dead						   				8545 21	17770 42	2531 7	-	-	124 3	2407 5		100 0		
All		17.9	52	296	282	11.3	25	142	135	8566	17813	2538	-	-	126	2412			    -	5.
	P	Percent	Tota	l Defe	:::	5		Per	Acre	122	254	36.3				34.5			T	

#### Grade and Grant Summaries Grade Percentages Based on Species Net Graded Volume

	_		_		_	_	GRAD	ES	<b>.</b> .	<b>.</b> .	<b>.</b> .		GRANTS
Species		1		2	3		4	5	6	7	8		3
DFSG				-	-		-	-	81	18	1		100
WH	ļ	-		-	-		-	-	66	27	7		100
RC	!	-		-	-		-	! ! -	-	   84	16		100
RA		-	1	-	-		-	   4·	15	   48	   33		100
•	+		-+-		+		+·	+	+	+	To <sup>-</sup>	tals:	100

Washington State Department of Natural Resources

Cruise Summary - Scribner Scale

Salename: FIDGET
Appl\_No: 72853
Unit No: 1
Acres: 70.0
Total Plot Count: 55

Section: 29 Cruiser: LB. MK. JG. DD.
Township: 18 North Cruise Date: 3/22/01
Range: 3 West , W.M. Grade Zone: WS (1)
Region: Central

Date: 4/11/20 Page: 2

	Count	Cruised	C.V		SEM	1	SEM
Species	Trees	TreeCnt	TreeCnt	Ratio	TreeCnt	Ratio	Combined
DFSGD	1	1	0.0	0.0	0.0	0.0	99.9
DFSGG	198	86	58.7	20.5	7.9	2.2	8.2
WHG	32	19	146.8	38.6	19.8	8.9	21.7
RCG	37	35	154.2	46.3	20.8	7.8	22.2
RAG	27	21	203.2	17.6	27.4	3.9	27.7
======	=====	======	======	=====	======	====	=======
All	295	162	40.0	25.4	5.4	2.0	5.8

#### Washington State Department of Natural Resources Jruise Tree Measurements - Scribner Scale

Date: 4/11/20 Page: 1

Salename: FIDGET	Section: 29	Cruiser: LB. MK. JG. DD.
Appl_No: 72853	Township: 18 North	Cruise Date: 3/22/01
Unit No: 1	Range: 3 West , W.M.	Grade Zone: WS (1)
Acres: 70.0		Region: Central
		+

cres	5.	70.0													. "	egron		entra	I.T.
										1 1	2	3	4	5	+ 	- Vol	ıme		
۵۲	Sample	Plat	Grant	Snn			Ton	. En	Tree	(6)	(7)	(8)	(9)	(10)		Ft.			Expan.
No.	Type	No.	ai aire	Орр		Ht.	•	Ht		Len/G/D	Len/G/D	Len/G/D	Len/G/D	Len/G/D		Net			Factor
	1,400				D-111		010		, ,	2011, 4, 5	2011, 4, 5	2011, 4, 5	2011, 4, 5	2011, 4, 5	4,000	,,,,,	u, 000		
1	VP	1	3	4	18.0	2.5	7	32	74	32/6/0	32/7/0	16/7/1			310	307	74	73	66.33
2	VP	1	3	6	27.0	2.6	10	32	76	32/6/0	32/6/0	19/7/1			910	903	175	173	21.56
3	VP	1	3	6	23.0	2.7	9	32	76	32/6/0	32/6/0	22/7/2			610	600	132	129	29.72
4	VP	1	3	4		2.6	9	32	74	32/6/0	32/6/0	19/7/1			530	525	116	115	40.62
5	VP	1	3	4		2.5	9	32	74	32/6/0	32/6/0	16/7/0			570	570	124	124	37.31
6	VP	1	3	6	19.0		7			32/6/0	32/7/0	16/7/0			380	380	84	84	43.55
7		1	3	4		2.2	8		74	32/6/0	32/7/0	6/C/0			410	400	89	86	48.73
										+					+				
8	VP	2	3	6				-	Record	!					1				
9	VP	2	3	4	iree	Coun	it Un	т У Н	Record	 +					 +				
10	VP	3	3	4	16.0	2.3	6	32	74	32/6/0	32/7/0	9/7/0			220	220	54	54	83.95
11	VP	3	3	4	23.0	2.5	9	32	74	32/6/0	32/6/0	16/7/2			520	512	114	112	40.62
12	VP ·	3	3	12	24.0	2.2	9	32	68	32/7/1	32/7/0	6/C/0			470	428	112	101	17.13
13	VP	3	3	6	23.0	2.3	9	32	76	32/6/1	32/6/0	9/7/0			530	493	116	109	29.72
14	VP	3	3	4	19.0		7	32	74	32/6/0	32/7/0	12/7/1			300	298	75	74	59.53
15		3	3	6	15.0		6		76	32/7/0	32/7/1	,.,			190	185	46	45	69.87
	VP	3	3	4	20.0		8		74	32/6/0	32/7/0	9/7/1			360	359	82	81	53.73
										÷					+				
	VP	4	3	4	Tree	Coun	t On	ly F	Record	1					1				
18	VP	4	3	12	22.0	1.5	8	32	68	32/7/1	16/7/1				260	234	71	64	20.39
19	VP	5	3	4	20.0	2.2	8	32	74	32/6/0	32/7/0	6/C/0			330	320	78	75	53.73
20		5	3	6		.5		17	75	16/8/0	02,.,0	0,0,0			20	20	5	5	245.64
	VP	5	3	4		2.0				32/6/0	32/7/1				550	538	118	114	34.38
<u></u> .	·									+					†				
22	VP	.101	3	4	31.0	2.9	12	32	74	32/6/0	32/6/0	28/7/0			1240	1240	234	234	22.36
23	VP	101	3	4	28.0	2.9	11	32	74	32/6/0	32/6/0	28/7/0			1000	1000	191	191	27.41
24	VP	101	3	4	18.0	2.6	7	32	74	32/6/0	32/7/0	19/7/1			310	307	75	74	66.33
25	VP	101	3	36	12.0	1.8	6	32	73	32/7/2	25/8/3				100	77	26	20	83.34
 26	VP	102	3	12	10.0	 5		17	60	+   16/8/2					+   20	16	 7	6	98.68
27		102		36	14.0		6		73	32/7/0	22/8/0				150	150	35	35	61.23
28			3							32/1/0	22/0/0				1 150	150	33	35	01.23
	VP	102		4					Record	 <b>+</b>					 <del> </del>				
29	VP	103	3	36	13.0	1.4	6	32	73	32/7/1	12/8/2				100	89	26	23	71.01
30	VP	103	3	12	9.0	.5	6	17	67	16/8/0					20	20	6	6	121.82
31	VP	103	3	4	31.0	2.6	12	32	74	32/6/0	32/6/0	19/7/0			1130	1130	217	217	22.36
32	VP	103	3	12	19.0	1.5	7	32	68	32/7/0	16/7/2	•			190	184	53	51	27.33
 33	VP	104	3	4	Troc	Coun	+ 05	 1v =	lecord	<b>+</b> 1					+ 1				
	VP VP	104						_		16/0/4					1 20	10		7	01 55
,4 	VF		3	14	11.0	.5 		17	55	16/8/1 +					20 +	18			81.55
35	VP	105	3 :	36	10.0	1.4	6	32	73	32/8/0	12/8/3				I 70	67	16	15	120.01

#### Washington State Department of Natural Resources ∪ruise Tree Measurements - Scribner Scale

Date: 4/11/20 Page: 2

Saler Appl		FIDGET 72853				• • • • •					ection: 2 wnship: 1		1			ruise ruise			JG. DD.	
Unit	_	1								10	•	3 West ,	w M			Grade			(1)	١
Acres		70.0									'iaiigo'i	,				egion		entra		,
										.+   1	2	3	4	5	+ 	- Vol	ıme			
Rec.	Sampl	e Plot	Gran	t Spp			Top	Fp	Tree	(6)	(7)	(8)	(9)	(10)	Bd.	Ft.	Cubi	c Ft.	Expan.	Tr
No.	Type	No.			D4h	Ht.	Dib	Ht	Fc	Len/G/D	Len/G/D	Len/G/D	Len/G/D	Len/G/D	Gross	Net	Gross	Net	Factor	Ct
36		105	3	36	12.0		6	32	73	32/7/0	32/8/2	9/C/0	•		130	110	30	26	83.34	1
37		105	3	36	21.0		8	32	73	32/7/3	32/8/3	16/8/4			450	312	100	69	27.21	1
38	VP	105	3	4	25.0		10	32	74	32/6/0	32/6/0	12/7/0			660	660	135	135	34.38	1
39	VP	105	3	4	32.0		12	32	74	32/6/0	32/6/0	25/7/0			1300	1300	243	243	20.99	1
40	VP	105	3	4	32.0		12	32	74	32/6/0	32/6/0	25/7/1			1300	1288	243	240	20.99	1
41	VP 	105		4 	30.0	2.7	12	32	. 74 	32/6/0  +	32/6/0	22/7/1			1100 +	1089	210 	207	23.88	1
42		106	3	4				-	Record	!										2
43		106	3	6	26.0				76	32/6/1	32/7/0	6/8/0			660	612	141	132	23.26	1
44	VP 	106		36	18.0	1.9		32	73 	32/7/0	28/8/1				240 +	235	61 	59	37.04	
45	VP	107	3	4	29.0	3.0	11	32	74	32/6/0	32/6/3	32/7/5			1120	939	213	174	25.55	1
46	VP	108	3	4	Tree	Coun	t On	ly F	Record	!					*   					6
47	VP	109	3	36	14.0	1.5	6	32	73	32/7/0	16/8/3				140	134	33	31	61.23	1
48	VP	109	3	4	27.0	3.0	10	32	74	32/6/0	32/6/1	32/7/0			920	888	181	175	29.48	1
49	VP	109	3	4	14.0	2.4	6	32	74	32/7/0	32/7/0	12/7/2			190	188	44	43	109.65	1
50	VP	109	3	4	30.0	3.0	12	32	74	32/6/0	32/6/0	32/7/1			1200	1184	229	225	23.88	1
51		110	3	12	13.0				68	32/7/0	6/8/0				80	80	22	22	58.39	1
52		110	3	4				•	Record	1										4
. 53	VP 	110		6 	20.0	2.5		32	76 	32/6/0	32/6/0	16/7/1			450 	447	97 	96	39.30	1
54	VP	111	3	4	8.0	.5	6	17	75	16/8/0					20	20	5	5	335.79	1
55	VP	111	3	4	9.0	.5	6	17	67	16/8/0					20	20	6	6	265.32	1
56	VP	112	3	4	Tree	Coun	t On	ly F	Record	İ										5
57	VP	113	3	6	20.0	2.2	8	32	76	32/6/0	32/7/0	6/7/0			380	380	87	87	39.30	1
58	VP	113	3	36	13.0	2.0	6	32	73	32/8/3	32/8/4				140	93	34	22	71.01	1
59	VP	113	3	4	29.0	3.0	11	32	74	32/6/3	32/6/4	32/7/5			1120	719	213	135	25.55	1
60	VP	113	3	4	29.0	2.9	11	32	74	32/6/2	32/6/0	28/7/2			1100	954	208	180	25.55	1
61	VP	114	3	4	Tree	Coun	t On	ly F	Record											6
62	VP	114	3	12	14.0	2.2	6	32	68	32/7/0	32/7/1	6/ /0		_	150	145	37	36	50.35	1
63	VP	115	3	4	19.0	2.7	7	32	74	32/6/0	32/6/0	22/7/0			350	350	82	82	59.53	1
64	VP	115	3	4	19.0	2.3	7	32	74	32/6/0	32/7/0	9/7/1			290	289	74	74	59.53	1
65	VP	115	3	4	23.0	2.9	9	32	74	32/6/0	32/6/0	28/7/0			580	580	126	126	40.62	1
66	VP	115	3	4	22.0		8	32	74	32/6/1	32/6/0	22/7/1			520	484	113	106	44.40	1
67	VP	115	3	4	25.0	3 0	10	32	74	32/6/0	32/6/0	32/7/0			780	780	156	156	34.38	1

4 Tree Count Only Record |

# Washington State Department of Natural Resources \_ruise Tree Measurements - Scribner Scale

Date: 4/11/20 Page: 3

Cruiser: LB. MK. JG. DD. Salename: FIDGET Section: 29 Cruise Date: 3/22/01 Grade Zone: WS Appl\_No: 72853 Township: 18 North Unit No: Range: 3 West , W.M. Region: Central 70.0 Acres: 2 (7) 3 4 | ----- Volume -----(9) Bd. Ft. Cubic Ft. Expan. Tr (8) (10) Top Fp Tree (6) Rec. Sample Plot Grant Spp Dib Ht Fc Len/G/D Len/G/D Len/G/D Len/G/D Gross Net Gross Net Factor Ct D4h Ht. Len/G/D No. Type No. 16/8/1 20 18 58.39 69 VΡ 116 12 13.0 6 17 46 12 100 27 83.34 6 32 73 32/8/0 28/8/5 85 22 70 ۷P 3 36 12.0 1.9 116 ۷P 8.0 6 16/8/1 20 18 5 4 245.64 71 116 6 . 5 67 58 72 VΡ 116 3 36 19.0 2.0 7 32 73 32/6/1 32/8/2 250 219 33.24 187 52 190 53 41.53 73 VΡ 116 3 36 17.0 1.9 6 32 73 32/7/0 28/8/1 410 27.21 9/8/1 381 VΡ 32 32/5/1 32/7/0 74 116 3 36 21.0 2.3 8 73 32.0 2.2 20.99 75 VΡ 201 3 12 32 74 32/6/1 32/6/0 6/7/0 1060 985 206 193 820 739 168 152 20.05 76 77 28.0 2.2 24.0 1.5 76 32/6/1 32/7/0 6/C/0 VΡ 201 3 6 11 32 360 360 88 88 17.13 VΡ 3 12 32 68 32/7/0 16/7/0 201 78 ۷P 12 23.0 1.5 9 32 68 32/7/0 16/7/0 320 320 79 79 18.65 201 146 41 38 46.88 160 79 VΡ 201 3 36 16.0 1.5 6 32 73 32/7/1 16/8/0 Tree Count Only Record 80 VΡ 202 3 32/7/2 16/C/0 81 VΡ 203 3 4 33.0 1.5 13 32 74 6 9 410 410 89 89 29.72 82 VΡ 203 3 23.0 1.5 32 32/6/0 16/7/0 Tree Count Only Record 83 VP 204 VΡ 6 Tree Count Only Record 84 204 85 VΡ 204 3 36 Tree Count Only Record 5 1460 1303 266 205 3 35.0 2.5 32 32/6/1 32/6/1 16/7/2 237 86 74 74 87 ۷P 4 29.0 2.8 11 32 32/6/0 32/6/1 25/7/0 1030 998 200 193 25.55 205 221 22.36 1150 221 88 VΡ 205 3 31.0 2.7 12 32 32/6/0 32/6/0 22/7/0 1150 74 ۷P 9 32 32/6/0 32/6/0 22/7/2 560 122 119 205 23.0 2.7 89 3 19.0 2.2 32 32/7/1 6/7/0 330 321 74 43.55 90 205 32/6/0 VΡ Tree Count Only Record 91 206 3 4 92 206 Tree Count Only Record 93 VΡ 206 3 36 Tree Count Only Record 1200 1200 229 23.88 94 207 30.0 3.0 32/6/0 32/6/0 32/7/0 95 ۷P 20.0 2.5 8 32 74 32/6/0 32/7/0 16/7/0 380 380 85 85 53.73 207 96 VP 207 3 4 20.0 2.6 8 32 74 32/6/0 32/7/0 19/7/0 410 410 91 91 53.73 VΡ 32 74 32/6/0 32/6/0 520 512 113 110 44.40 97 22/7/2 207 3 22.0 2.7 8 ۷P 74 1390 1310 259 242 20.99 98 207 32.0 3.0 12 32 32/6/0 32/6/1 32/7/2 99 VΡ 207 3 12 14.0 1.2 6 32 68 32/7/0 6/7/0 100 100 26 26 50.35 VΡ 26 50.35 100 207 3 12 14.0 1.2 6 32 68 32/7/0 6/7/0 100 100 26 101 VΡ 207 13.0 1.0 6 32 52 32/7/0 50 19 19 58.39 12 102 ۷P 8 9/7/0 200 200 55 55 24.67 20.0 1.3 32 32/7/0 ----103 ۷P 208 3 3 Tree Count Only Record Tree Count Only Record 104

# Washington State Department of Natural Resources use Tree Measurements - Scribner Scale

Date: 4/11/20 Page: 4

Appl_	No: s:	72853									Section: 2 ownship: 1 Range:		w.m.		C	ruise Cruise Grade Region	Date: Zone:	3/2	(1)	)
	Sampl	e Plot No.	Gran	t Spp	D4h	Ht.	Top Dib		Tree Fc	1   (6)   Len/G/D	2 (7) Len/G/D	3 (8) Len/G/D	4 (9) Len/G/D	5 (10) Len/G/D	•	- Volu Ft. Net		ic Ft.	Expan. Factor	
105 106 107 108	VP VP	209 209 209 209	3 3 3	4 3 12 12	28.0 21.0 10.0 30.0	2.0	11 8 6 12	32 32 17 32	74 74 60 62	32/6/0   32/6/3   16/8/0   32/7/0	32/7/0 32/7/5 6/7/0	6/7/0			   770   350   20   460	770 231 20 460	156 82 7 117	156 52 7 117	27.41 21.17 98.68 10.96	1 1 1
109 110	VP	210 210	3	4 6				•	lecord lecord	   					+     					9
111 112 113 114 115	VP VP VP	211 211 211 211 211 211	3 3 3 3	12 12 12 12 12	22.0 20.0 9.0 13.0 21.0	1.5 .5 1.3	8 8 6 6	32 32 17 32 32	68 68 67 68 68	32/7/0 32/7/0 16/8/0 32/7/0 32/7/0	16/7/0 16/7/0 9/7/0 16/7/0				260 220 20 80 260	260 220 20 80 260	71 60 6 23 67	71 60 6 23 67	20.39 24.67 121.82 58.39 22.38	1 1 1 1
116 117		212 212	3	4 12				•	lecord lecord	†   					+   					5
118 119 120 121 122	VP VP VP	213 213 213 213 213	3 3 3 3	4 4 4 4	21.0 24.0 25.0 24.0 21.0	2.0 2.2 2.0	8 9 10 9	32 32 32	74 74 74 74 74	32/6/0 32/6/0 32/6/0 32/6/0 32/6/0	22/7/0 32/7/2 32/7/0 32/7/0 32/7/0	6/7/0 3/C/0			320 460 590 460 370	320 442 590 460 370	73 106 124 106 85	73 99 124 106 84	48.73 37.31 34.38 37.31 48.73	1 1 1 1
123 124		214 214	3 3	4 12				-	lecord lecord	+   					<b></b>					5
125 126 127 128	VP VP VP	301 301 301 301	3 3 3	4 36 4 4	26.0 12.0 24.0 33.0	1.3 3.2 3.0	10 6 9 13	32 32 32	74 73 74 74	32/6/2 32/8/1 32/6/0 32/6/1	32/6/2 9/8/2 32/6/0 32/6/2	32/7/3 32/7/0 32/7/1	9/C/0 6/7/0		970 80 730 1480	738 71 730 1284	186 21 149 275	140 18 149 239	31.79 83.34 37.31 19.73	1 1 1
129  130		301  302	3 3	4		3.2 Count		32  ly R	ecord	32/6/1 + 	32/6/4	32/7/4	6/C/0 		2220 	1632	379	277	14.88	4
131 132 133	VP VP VP	303 303 303	3 3 3	12 4 12	12.0 30.0 24.0		6 12 9	23 32 32	50 74 68	+	32/7/0 16/7/0	16/7/0			30 1070 360	30 1003 328	12 203 88	12 191 81	68.53 23.88 17.13	1 1
134 135 136	VP VP VP	304 304 304	3 3 3	4 12 12	Tree 10.0 10.0	Count .5		Ly R 17 17	ecord 60 60	+					20 20	20 20	7 7	7 7	98.68 98.68	4 1 1
137 138	VP VP	305 305	3 3	4	32.0 30.0		12 12	32 32	74 74	32/6/1 32/6/1	32/7/1 32/6/0	9/7/0 16/7/0		` ` 	1110 1070	1003 1003	213 203	193 191	20.99	1

				Washington State Department of Natural Resources Gruise Tree Measurements - Scribner Scale										•		Date Page	: 4/1 :: 5	1/20		
App1_	name: I _No: 7 No: 6	72853									section: 2 wnship: 1 Range:		w.m.		C	ruise	Date: Zone:	3/2	(1	)
Rec. No.	Sample Type	e Plot	Gran	nt Spp	D4h	Ht.	Top Dib	•	Tree Fc	1   (6)   Len/G/D	2 (7) Len/G/D	3 (8) Len/G/D	4 (9) Len/G/D	5 (10) Len/G/D	1	Ft.	ume Cubi Gross	c Ft.	Expan. Factor	
139	VP	305	3	4			11	32	74	İ	32/6/0	25/7/2			   980	848	188	162	27.41	1
			_	4 36	28.0		7	32	73	32/6/2	16/8/1	25/1/2			1 190	155	50	41	37.04	
140 141	VP VP	305 305	3	36	18.0 16.0		6	32	73 73	32/7/2 32/6/0	16/8/2				160	156	41	39	46.88	
142	VP VP	305	3	12	10.0		6	17	60	16/8/0	10,0,2				20	20	 7	7	98.68	
143	VP	306	3	6	22.0	2.0	8	32	76	32/6/0	32/7/0				1 390	390	94	94	32.48	1
144		306	3	36	14.0		6	32	73	32/7/0	16/8/4				140	132	33	30	61.23	
145		306	3	4			-		ecord	1	,.,									4
146	VP	307	3	4	28.0	3.0	11	32	74	32/6/1	32/6/0	32/7/0			1020	964	196	186	27.41	1
147	VP	307	. 3	4	22.0	2.3	8	32	74	32/6/0	32/6/0	9/7/0			470	470	102	102	44.40	1
148	VP	307	3	4	24.0	2.5	9	32	74	32/6/0	32/6/1	16/7/0			570	554	124	120	37.31	1
149	VP	307	3	12	13.0	1.4	6	32	68	32/7/0	12/7/0				80	80	24	24	58.39	1
150	VP	307	3	4	22.0	2.8	8	32	74	32/6/0	32/6/0	25/7/0			530	530	115	115	44.40	1
151	VP	307	3	4	25.0	3.2	10	32	74	32/6/0	32/6/0	32/7/0	6/ /0		870	870	168	168	34.38	
152	VP	307	3	4	19.0	2.7	7	32	74	32/6/0	32/6/0	22/7/0			350	350	82	82	59.53	
153	VP	307	3	4	25.0		10	32	74	32/6/0	32/6/0	28/7/2			760	740	153	148	34.38	
154	VP	307	3	36	18.0	1.9	7	32	73	32/6/2 +	28/8/2				240 +	192	61 	48	37.04	- 1
155 156	VP VP	308 308	3 3	12 4			12 it On:		68 ecord	32/7/1 	16/7/0				690 	629	152	139	9.64	1
157	VP	309	3	4	26.0	2.3	10	32	74	32/6/1	32/7/0	9/7/0			700	652	142	133	31.79	1
158	VP	309	3	12	19.0		7	32	68	32/7/1	9/8/0	-,.,-			170	154	49	45	27.33	1
159		309	3	4	30.0		12	32	74	32/6/1	32/7/0	16/7/0			1070	1003	203	191	23.88	
160	VP	310	3	12	9.0	.5	6	17	67	+   16/8/0					20	20	6	6	121.82	1
161	VP	310	- 3	12	12.0	1.0	6	32	57	32/7/0					50	50	17	17	68.53	
162	VP	310	3	6	22.0	2.5	8	32	76	32/6/0	32/7/0	16/7/0			510	510	113	113	32.48	
163	VP	310	3	4	Tree	Cour	t On	ly R	ecord	 +					 +					
164	VP	311	3	12	8.0		6	20	75	19/8/0					20	20	6	6	154.18	
165	VP	311	3	4	21.0		8	32	74	32/6/1	32/6/0	16/7/0			450	422	97	92	48.73	
166	VP	311	3	4	30.0		12	32	74	32/6/0	32/6/2	22/7/1			1100	1025	210	193	23.88	
167	VP	311	3	4	29.0		11	32	74	32/6/0	32/7/0	25/7/1			1030	1020	200	197	25.55	
168	VP	311	3	4	28.0		11	32	74	32/6/0	32/6/3	9/7/0			820	751	163	146	27.41	
169 170	VP VP	311 311	3 3	4 6	23.0 21.0		9 8	32 32	74 76	32/6/1 32/6/0	32/6/0 32/7/1	16/7/0 6/7/0			520   410	488 398	114 92	107 89	40.62 35.65	
 171	VP	312	 3	4	Tree	Cour	t On	 lv P	ecord	+ I					+ l					
172	VP VP	312	3	6	12.0		6	32	76	   32/7/1	22/8/0				1 120	111	28	26	109.17	_
173	VP VP	312	3	36	18.0		7	32	73	32/7/1	25/8/2				1 200	160	55	44	37.04	
. , 3	<b>V</b> 1.	012	3	.00		1.0		J2	7.5	1 02/0/2	23/0/2							77	٠, ١٥٩	

174 VP 313 3 6 Tree Count Only Record |

## Washington State Department of Natural Resources √i'uise Tree Measurements - Scribner Scale

Date: 4/11/20 Page: 6

Cruiser: LB. MK. JG. DD. Cruise Date: 3/22/01 Grade Zone: WS (1 Salename: FIDGET Section: 29 Appl\_No: 72853 Township: 18 North Range: 3 West , W.M. Unit No: 1 Central Region: 70.0 Acres: | ----- Volume -----2 (7) Rec. Sample Plot Grant Spp Top rp 1102 No. D4h Ht. Dib Ht Fc 5 3 4 (9) (8) Bd. Ft. Cubic Ft. Expan. Tr Gross Net Gross Net Factor Ct (10) (6) Len/G/D Len/G/D Len/G/D Len/G/D | 3 4 Tree Count Only Record | 175 VP 313 176 314 Plot Count Only Record | 177 VΡ 315 6 Tree Count Only Record 178 VP 315 3 4 Tree Count Only Record 32/7/1 32/6/0 50 45 28 25 61.41 179 VΡ 316 3 6 16.0 1.0 6 32 45 124 7 570 570 124 37.31 32/6/0 74 16/7/0 180 VP 316 3 24.0 2.5 9 32 20 70 ۷P 6 17 60 16/8/0 20 98.68 316 12 10.0 181 46 44 74 70 46 22.38 182 VΡ 316 12 21.0 1.0 8 32 32/7/0 770 747 152 147 VΡ 10 32 32/6/0 32/6/1 16/7/0 183 316 3 26.0 2.5 150 136 39 36 83.95 ۷P 3 16.0 1.4 6 32 32/7/1 12/8/0 184 316 185 VP 317 3 4 Tree Count Only Record | 28.0 2.7 11 74 32/6/0 32/6/0 22/7/0 930 930 180 180 27.41 186 318 74 74 32/8/1 32/6/0 140 126 33 29 109.65 187 VΡ 318 3 14.0 1.5 6 32 16/8/1 53.73 25/7/0 420 420 94 94 VΡ 20.0 2.8 8 32 32/7/0 188 318 3 20 270 3 17 16/8/0 20 5 5 245.64 189 ۷P 318 8.0 .5 6 75 32 74 32 74 67 270 67 66.33 190 VΡ 318 3 18.0 2.2 32/6/0 32/7/0 6/7/0 724 VΡ 880 172 140 31.79 3 3 10 32/6/1 32/6/3 32/7/2 191 318 4 26.0 3.0 ۷P 28.0 3.0 32/6/0 32/7/0 1020 1020 196 196 27.41 192 318 32 32/6/0 11 ۷P 318 3 18.0 2.3 32 32/6/0 32/7/0 9/7/0 290 290 71 71 66.33 193 194 VΡ 319 Tree Count Only Record 3 ۷P 36 32/7/3 25/8/2 200 144 55 40 37.04 195 3 18.0 1.8 32 319 9/7/0 470 470 102 102 44.40 32/6/0 32/6/0 196 VP 320 3 22.0 2.3 8 32 74 490 490 44.40 197 VΡ 3 22.0 2.5 8 32 32/6/0 32/6/0 16/7/0 106 320 198 ۷P 320 27.0 2.5 10 32 74 32/6/0 32/6/0 16/7/0 770 770 156 156 29.48 12 7 74 74 1070 1070 203 23.88 199 VP 320 3 30.0 2.5 32 32/6/0 32/6/0 16/7/0 203 VP 64 32 32/7/0 200 320 3 18.0 2.0 32/6/0 ۷P 22.0 2.3 8 32/6/0 32/6/0 9/7/0 470 470 102 102 44.40 201

END OF CRUISE DATA

Washington State Department of Natural Resources Date: 4/11/20 Page: 1

Cruise Specifications and Computation Controls

 Salename: FIDGET
 Section: 29
 Cruiser: LB. MK. JG. DD.

 Appl\_No: 72853
 Township: 18 North
 Cruise Date: 3/22/01

 Unit No: 1
 Range: 3 West , W.M.
 Grade Zone: WS (1)

 Acres: 70.0
 Region: Central

Westside Grading Rules Used For All Species

		Cru	ised	Tree	Cont	rols		Const	ants		Ex	pansio	on Co	ntrols	
Species	Fp Fo	orm \	Top Dia		-	ment Trim	D+B %	Bark Ratio	Lbs/ Cf	Sample Type	Exp/Ba Factor	V <sub>I</sub> Size		Tree Count	Cr. TreeDib CountClass
DFSGD(3)	32	74	6	40	32	1.0	0	0.920	52	VP	40.00	F	4	1	1
DFSGG( 4)	32	74	6	40	32	1.0	0	0.920	52	VP	40.00	F	4	198	86
WHG (6)	32	76	6	40	32	1.0	0	0.944	52	VP	40.00	F	4	32	19
RCG (12)	32	68	6	40	32	1.0	0	0.951	48	VP	40.00	F	4	37	35
RAG (36)	32	73	6	40	32	1.0	0	0.953	46	VP	40.00	F	4	27	21
											Total Tr	ees:		===== 295	==== 162

Plots Counted: 55

Date: 4/11/20 Page: 1

Cruise Summary - Scribner Scale

Salename: FIDGET R/W

|Percent Total Defect: 9

Section: 29 Township: 18 North Range: 3 West , W.M.

Cruiser: B.D.K.G. Cruise Date: 3/22/01 Grade Zone: WS (1) Region: Central

Appl_No: 72853 Jnit No: 2 Acres: 4.0						Township: 18 North Range: 3 West , W.M.							Crui	e: WS	e: 3/22/01				
Average Tree					!	Average Log			Totals									Sample Anal	
Species	D4h (In)	Feet of Logs	Gross (Board		   Dib   (In)		Gross (Board		•	Logs	Gross Mbf	Util Mbf	Spcl Cull Mbf	Cull Mbf	Net Mbf			  Sample   Type	SEM
DFSGG 4	26.8	80	774	703	14.9	27	263	239	   159	467	123	-	-	11	112	112	66	l   VP	20.5
WHG 6	17.6	62	260	245	10.3	27	111	105	   190	442	49	-	-	3	47	47	27	VP	33.2
RCG 12	17.0	22	30	30	6.0	22	30	30	13	13	0	-	-	-	0	0	0	VP	
RAG 36	13.0	57	129	106	7.6	27	60	50	108	230	14		-	2	11	11	7	VP	52.2
A11	20.4	66	397	362	     11.9	27	162	148	   469	1152	186	-		16	170		-,		12.3

#### Grade and Grant Summaries Grade Percentages Based on Species Net Graded Volume

Per Acre: 117 288 46.6

	GRADES											GRANTS							
Species		1		2		3		4		5	]	6	7	Ţ	8	[	]	3	į
DFSG		-		-		-		-		-	ļ	93	7		-		1	100	ļ
WH		-	!	-		-		-		-		72	28	-	-		1	100	
RC		-	!	-		•		-		-		-	100	-	-	 	1	100	
RA		-		-	1	-		-		-		16	23	-	61	! 	1	100	
	+		+		+	·	+		+		+	· <del>†</del>		-+-	To	tals:	† 1 †	100	+   +

Washington State Department of Natural Resources

Cruise Summary - Scribner Scale

Salename: FIDGET R/W
Appl\_No: 72853
Unit No: 2
Acres: 4.0
Total Plot Count: 8

Section: 29 Cruiser: B.D.K.G.
Township: 18 North Cruise Date: 3/22/01
Range: 3 West , W.M. Grade Zone: WS (1)
Region: Central

Date: 4/11/20 Page: 2

Species	Count Trees	Cruised TreeCnt	C.V TreeCnt	 Ratio	SEM	A Ratio	SEM Combined
obecies	11662	II eeciit	11 eecilt	natio	Heedill	natio	COMPTHEA
DFSGG	31	14	55.9	19.9	19.8	5.3	20.5
WHG	16	8	88.6	30.9	31.3	10.9	33.2
RCG	1	. 1	88.6	30.9	31.3	10.9	99.9
RAG	5	5	146.6	14.7	51.8	6.6	52.2
======	=====	======	======	=====	======	=====	======
All	53	28	32.2	24.4	11.4	4.6	12.3

Washington State
Department of Natural Resources
oruise Tree Measurements - Scribner Scale

Date: 4/11/20 Page: 1

Cruiser: B.D.K.G. Salename: FIDGET R/W Section: 29 Cruise Date: 3/22/01 Grade Zone: WS Appl\_No: 72853 Township: 18 North Unit No: 2 Range: 3 West , W.M. Region: Central Acres: 4.0 ----- Volume -----3 5 (8) (9) (10) Len/G/D Len/G/D Len/G/D Bd. Ft. Cubic Ft. Expan. Tr Rec. Sample Plot Grant Spp Top Fp Tree (6) (7) D4h Ht. Dib Ht Fc Len/G/D Gross Net Gross Net Factor Ct Len/G/D No. Type No. VΡ 17.0 2.0 6 32 72 32/6/1 32/8/1 210 189 55 49 12.69 533 117 24.0 2.5 32/6/0 16/7/0 570 124 14.10 2 VΡ 3 9 32 74 32/6/1 9.66 ۷P 29.0 2.3 32 74 32/6/0 32/C/0 9/C/0 870 610 107 3 11 VΡ 23.0 2.3 9 32 75 32/6/0 32/6/0 9/7/1 530 528 116 115 13.86 72 ۷P 6 18.0 2.4 32 75 32/6/0 32/7/0 12/7/1 300 298 71 22.64 138 138 12.99 25.0 2.5 12.0 2.0 74 72 680 680 6 7 VΡ 3 4 10 32 32/6/0 32/6/0 16/7/0 VP 6 32 32/8/1 32/8/2 120 103 28 24 25.47 3 36 8 ۷P 31.0 2.5 12 32 32/6/2 32/6/0 16/7/2 1070 920 208 180 8.45 Tree Count Only Record 9 VP 3 6 Tree Count Only Record 10 ۷P 3 32/6/0 32/7/0 16/7/1 270 268 32 11 VΡ 6 17.0 2.5 6 ۷P 6 21.0 2.5 8 32 75 32/6/0 32/6/0 16/7/1 450 447 100 99 16.63 12 13 ۷P 6 20.0 2.3 8 32 75 32/6/1 32/7/0 9/7/0 360 337 85 80 18.34 580 548 126 119 15.35 28/7/0 14 VΡ 3 3 4 23.0 2.9 9 32 74 32/6/1 32/6/0 12 32 239 7.93 4 32.0 2.7 74 32/6/1 32/6/1 22/7/1 VΡ 15 3 16 ۷P 3 12.0 1.0 6 32 57 32/7/2 50 40 17 14 50.93 17 VΡ Tree Count Only Record 4 3 4 3 Tree Count Only Record 18 30 30 23 12.69 19 VΡ 5 3 12 17.0 .7 6 23 40 22/7/0 25.0 2.4 32/6/0 660 656 135 134 12.99 20 10 32/6/0 21 VP 5 3 4 31.0 2.5 12 32 74 32/6/0 32/6/0 16/7/2 1070 1054 208 204 8.45 75 75 190 187 51 50 25.38 VΡ 6 32 22 5 6 17.0 1.8 32/6/0 25/7/1 23 21.0 2.2 8 32 316 92 72 16.63 ۷P 3 6 32/6/3 32/7/0 5 24 ۷P 5 3 25.0 2.5 10 32 74 32/6/3 32/C/0 16/C/0 680 301 138 55 12.99 Tree Count Only Record | 25 VP 6 3 4 26 VΡ 7 3 36 14.0 1.5 6 32 32/7/0 16/8/5 110 100 30 27 18.71 14.32 7.46 9/C/0 140 34 VΡ 220 54 27 3 36 16.0 2.3 6 32 72 32/7/5 32/8/0 241 ۷P 33.0 2.5 32 32/6/0 32/6/0 16/7/1 1280 1270 239 28 3 13 29 VΡ 4 24.0 2.5 9 32 74 32/6/0 32/6/0 16/7/0 570 570 124 124 14.10 30 VΡ 3 4 22.0 2.3 8 32 74 32/6/0 32/6/0 9/7/1 470 469 102 101 16.78 VΡ 74 1288 243 7.93 31 4 32.0 2.8 12 32 32/6/0 32/6/0 25/7/1 1300 240 3 VΡ 736 157 9.66 32 29.0 2.0 11 32/6/0 32/7/1 750 33 VΡ 8 3 6 Tree Count Only Record | Tree Count Only Record

END OF CRUISE DATA

8

3 36

10.0 1.5 6 32 72

32/8/0

16/8/5

80

70

18

15

36.67

35 VP

Washington State Department of Natural Resources Date: 4/11/20 Page: 1

Cruise Specifications and Computation Controls

Salename: FIDGET R/W

Appl\_No: 72853

Township: 18 North

Unit No: 2

Range: 3 West, W.M.

Region: Central

53

28

Westside Grading Rules Used For All Species

	Cr	uise	d Tree	Cont	rols		Const	ants		Ex	pansi	on Co	ontrols	
Species	Fp Form Ht \ \	To <sub>l</sub> Dia	p-\\ a %	_	ment Trim	D+B %	Bark Ratio	Lbs/ Cf	Sample Type	Exp/Ba Factor	V Size	•	Tree Count	Cr. TreeDib CountClass
DFSGG( 4)	32 74	6	40	32	1.0	0	0.920	52	VP	40.00	F	4	31	14
WHG (6)	32 75	6	40	32	1.0	0	0.944	52	VP	40.00	F	4	16	8
RCG (12)	. 32 68	6	40	32	1.0	0	0.951	48	VP	40.00	F	4	1	1
RAG (36)	32 72	6	40	32	1.0	0	0.953	46	VP	40.00	F	4	5	5

Plots Counted: 8

Total Trees:

#### STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES CENTRAL REGION

#### **FIDGET**

#### **ROAD PLAN**

## SECTION 19, 20, 27, 28, 29 TOWNSHIP 18 NORTH, RANGE 03 WEST, W.M. THURSTON COUNTY

#### **BLACK HILLS DISTRICT**

CONTRACT ADMINISTRATOR: Jim LeJeune AGREEMENT NO.: 30-072853 STAFF ENGINEER: Terry Orton DATE: 03/01/2001 DRAWN & COMPILED BY: Alicia Compton APPROVED BY LEGEND Sale Area Sale Area Boundary Tags Right-of-Way Boundary Tags Existing Road Required Construction Required Reconstruction 130+13= Gate 0+00 Gate (to be Installed) 4 ac R/W Rock Source Recreation Trail Stream Water Type Monument Corner 4 5 Wetland Riparian Management Zone \*\*\*\*\*\*\*\*\*\* SCALE: 1' = 1,000' Drawn By: JAD Date: April 2, 2001 3+82 70 oc 29+64 Spur 0+00 3 3 3 Sec 21, T18N, R03V, V.M. Page # B-8000 **INDEX** B-8000 Specifications.....2-12 69+18 Typical Section Sheet ......13 67+86 Rock List.....14 Road Plan Map ...... 15-17 Culvert List.....18 Culvert & Drainage Specification Detail......19-20 Sec 19, T18N, R03W, W.M. Road Maintenance Specifications ......21 Fill Removal Detail .....22 Settling Pond & Pump Detail .....23 51+2 Live Stream Culvert Removal Detail ......24 63+35 Culvert Installation Procedure B-Line-station 53+90.....25-26 B-8000-station 68+64 .....27 Asphalt Pavement Detail .....28

Quarry Development Plan.....29

Perry Creek

#### SECTION 0 - SCOPE OF PROJECT

This project includes but is not limited to construction including:

clearing; grubbing; right-of-way debris disposal; excavation and/or embankment to subgrade; landing construction; acquisition and installation of drainage structures; acquisition, manufacture, and application of rock; grass seeding.

This project also includes but is not limited to reconstruction including:

clearing existing excavation and embankment slopes; grubbing existing excavation and embankment slopes; right-of-way debris disposal; constructing ditches; acquisition and application of ASPHALT CONCRETE CLASS 'A'; replacement of existing drainage structures; widening road segments; grading and shaping existing road surface and turnouts; constructing additional turnouts; compaction of road surface; acquisition, manufacture, and application of rock; grass seeding.

This project also includes but is not limited to pre-haul maintenance including:

cleaning ditches; cleaning culvert inlets and outlets; grading and shaping existing road surface and turnout.

#### SECTION 1 - GENERAL CLAUSES

#### 1.1-1

Clauses in this plan apply to all construction, reconstruction, or pre-haul maintenance including landings unless otherwise noted.

#### 1.1-2

Construction, reconstruction, or pre-haul maintenance of the following roads is required. All roads shall be constructed, reconstructed, or pre-haul maintained on the State's location and in accordance with this Road Plan.

Road	<u>Stations</u>	Type
B-Line	51+20 to 63+35	Reconstruction
B-8000	67+86 to 69+18	Reconstruction
B-8500	0+00 to 130+13	Pre-haul maintenance
Spur 1A	0+00 to 32+76	Construction
Spur 1B	0+00 to 3+82	Construction

#### 1.1-4

If the Purchaser desires a road location or design change, a revised Road Plan shall be submitted to the State for consideration.

#### 1.1-5

On this plan quantities are minimum acceptable values. Additional quantities required by the State because of hidden conditions or Purchaser's choice of construction season or techniques shall be at the Purchaser's expense. Hidden conditions include, but are not limited to: solid subsurface rock, subsurface springs, saturated ground, and unstable soil.

FIDGET 30-072853 MARCH 1, 2001 Page 2 of 29

1.2-1

The construction, reconstruction, or pre-haul maintenance of any roads specified herein shall not be permitted between September 30 and May 1 unless authority to do so is granted, in writing, by the Contract Administrator.

1.2 - 2

Purchaser shall not use roads constructed, reconstructed, or pre-haul maintained under this Road Plan for hauling, other than timber cut on the right-of-way, without written approval from the Contract Administrator.

1.2.1-1

Pioneering shall not extend past construction that will be completed during the current construction season. Drainage shall be provided on all uncompleted construction as approved, in writing, by the Contract Administrator.

Clearing and grubbing shall be completed prior to starting excavation and embankment.

Culvert placement in live streams shall precede embankment where culverts are to be placed along natural ground.

Culverts shall be installed in completed subgrade as construction progresses.

Subgrade, ditches, and culvert installations shall be completed and are subject to written approval by the Contract Administrator prior to rock application and/or timber haul.

1.3-1A

Hauling shall be suspended when wheel track rutting exceeds 6 inches unless Purchaser elects to correct the situation at his/her own expense. Corrective measures and continued operations are subject to written approval by the Contract Administrator.

1.4-3

Reference points (R.P.'s) that are moved or damaged at any time during construction shall be reset in their original locations by the Purchaser. Excavation and embankment shall not proceed on road segments controlled by said R.P.'s until all moved or damaged R.P.'s are reset.

1.5-1

Maintenance on roads listed in Contract Clauses C-50 (Purchaser Road Maintenance and Repair) and C-60 (Designated Road Maintainer) shall be performed in accordance with Forest Access Road Maintenance Specifications.

1.5-3

Snowplowing shall not be permitted unless authorized, in writing, by the Contract Administrator.

#### **SECTION 2 - CLEARING**

2.1-1

Fell all vegetative material larger than 2 inches DBH or over 5 feet high between the marked right-of-way boundaries or if not marked in the field, between clearing limits specified on TYPICAL SECTION SHEET.

#### **SECTION 3 - GRUBBING**

3-1
All stumps shall be removed that fall between grubbing limits shown on the TYPICAL SECTION SHEET.
Those outside the grubbing limits but with undercut roots shall also be removed.

3-2
Grubbing limits are defined as the entire area between the external limits shown on the TYPICAL SECTION SHEET.

FIDGET 30-072853 MARCH 1, 2001 Page 3 of 29

#### SECTION 4 - DEBRIS DISPOSAL AND REMOVAL

#### 4.1-1

Right-of-way debris is defined as all nonmerchantable vegetative material larger than one cubic foot in volume within the grubbing limits.

#### 4.1-2

All right-of-way debris disposal shall be completed prior to the application of rock and/or timber haul.

#### 4.2.3-3

Right-of-way debris shall not be placed against standing timber.

#### 4.2.3 - 4

Right-of-way debris shall be scattered outside the grubbing limits.

#### **SECTION 5 - EXCAVATION**

#### 5.1-1

Roads shall be constructed or reconstructed in accordance with dimensions shown on the TYPICAL SECTION SHEET.

#### 5.1-3

Road grade and alignment shall conform to the State's marked location. Grade and alignment shall have smooth continuity without abrupt changes in direction. Maximum grades are: 18 percent favorable and 12 percent adverse. Minimum radius curve is 60 feet.

#### 5.1 - 4

Minimum extra widening on the inside of curves shall be:

5 feet extra	80 to 100 foot radius curve
7 feet extra	60 to 80 foot radius curve

#### 5.1-5

Curve widening, where required, shall be added to the inside of curves.

#### 5.1-7

Roads shall be constructed or reconstructed to the dimensions shown on the TYPICAL SECTION SHEET, within the tolerance listed below. Tolerance classes for each road are listed on the TYPICAL SECTION SHEET.

Tolerance Class	Α	В	C
Road Width (feet)	+1.5	+1.5	+2.0
Subgrade elevation (feet +/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	1.0	1.5	3.0

#### 5.1-8

Excavation slopes shall be constructed no steeper than shown on the following table:

Material Type	<b>Excavation Slope Ratio</b>
Common Earth (on side slopes of 55%)	1:1
Common Earth (55% to 70% sideslopes)	3/4:1
Common Earth (on slopes over 70%)	
Fractured or loose rock	
Hardpan or solid rock	

#### 5.1-8E

On the following road, Purchaser shall reconstruct the subgrade to provide enough width for a one foot shoulder on each side of the asphalt concrete pavement.

Road	<u>Stations</u>
B-Line	52+70 to 61+85

FIDGET 30-072853 MAR

#### 5.1-9

Excavation and embankment slopes shall be constructed to a uniform line and left rough for easier revegetation.

#### 5.1-10

Embankments shall be widened as follows:

Height at Centerline	Subgrade Widening
Less than 6 feet	2 feet
6 feet or over	4 feet

#### 5.1-11

Embankment slopes shall be constructed no steeper than shown on the following table:

Material Type	Embankment Slope Ratio
Common Earth and Rounded Gravel	1½:1
Angular Rock	11/4:1
Sandy Soils.	

#### 5.1-12

Organic material shall be excluded from embankment.

#### 5.1-15B

Except as described in 5.1-16C, waste material may be deposited adjacent to the road prism on side slopes up to 45 percent if the waste material is compacted and more than 100 feet away from live streams. On side slopes between 45 and 55 percent, all excavation not needed for embankment shall be end hauled or pushed to designated embankment sites. On side slopes of 55 percent or more, all excavation shall be end hauled or pushed to designated embankment sites. All waste embankments shall be compacted in layers not exceeding 2 feet.

#### 5.1-15C

When constructing landings, waste material and embankment shall not be placed on side slopes steeper than 45%.

#### 5.1-16B

The amount of material to be contained in a waste area shall be at the discretion of the Contract Administrator.

#### 5.1-16C

On the following road, all excavated material not suitable for embankment as directed by the Contract Administrator, shall be end hauled to designated waste areas.

#### End Haul/Waste Material Disposal

	End Haul	Waste Area		
Road	<b>Stations</b>	Station (s)	Location	<u>Remarks</u>
B-Line	53+60 to 54+20	52+70	Right side	Use material for select borrow as directed by Contract Administrator
B-8000	67+86 to 69+18	60+72	Left side	٠، ٠،

#### 5.1-18

Select borrow shall contain no more than 5% dirt, vegetative debris, or other waste material by volume.

#### 5.1-19

Select borrow shall be used at the following locations:

Road	<b>Stations</b>	Source
B-Line	53+60 to 54+20	Existing fill & Perry Creek Quarry
B-8000	67+86 to 69+18	Existing fill & B-8100 @ 0+25, right side

#### 5.1-21

Waste material shall not be deposited within 50 feet of a cross drain culvert installation.

#### 5.1-23

Turnout locations noted on this plan are approximate. Locations shall be adjusted to fit with final subgrade alignment and sight distances. Location shall be subject to approval by the Contract Administrator.

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#### 5.1-25

Turnarounds shall be no larger than 30 feet long and 30 feet wide. Location shall be subject to approval by the Contract Administrator.

#### 5.2-1

Road pioneering operations shall not undercut the final cut slope, deposit excavated material outside the grubbing limits, or restrict drainage.

#### 5.3 - 1

All embankment and waste material shall be compacted. The minimum acceptable compaction is achieved by placing embankments in 2 foot or shallower lifts and routing excavation equipment over entire width of the lifts.

#### 5.3-2B

On the following roads, all embankment shall be compacted full width in 12 inch lifts by three coverages with a vibratory drum roller weighing at least 14,000 pounds at a maximum operating speed of 3 mph. For embankment segments too narrow to accommodate a drum roller, a plate compactor shall be used. With a plate compactor three full coverages shall be made in 12 inch lifts.

Road	<u>Stations</u>
B-Line	53+60 to 54+20
B-8000	67+86 to 69+18

#### 5.4-1

Silt-bearing runoff shall not be permitted to go into streams.

#### 5.4-2

Accomplish sediment removal through silt traps, silt fences, settling ponds, or other methods as approved, in writing, by the Contract Administrator.

#### 5.4-3A

On the following roads, Purchaser shall furnish and evenly spread the seed mixture listed below on all exposed soil inside the grubbing limits at a rate of 40 pounds per acre. The date of application is subject to approval by the Contract Administrator.

Mixture Percent by Weight	Minimum Percent Germination
50% Fescue, Red	90% Germination
25% Ryegrass, Perennial	90% Germination
15% Bentgrass	85% Germination
10% Clover, White and White	90% Germination
Dutch (inoculated)	

Weed seed shall not exceed 0.5% by weight.

Seed shall be furnished in standard containers on which the following shall be shown:

- 1. Common name of seed
- 2. Net weight
- 3. Percent of purity
- 4. Percentage of germination
- 5. Percentage of weed seed and inert material

Required seed not spread by the termination of this contract shall become property of the State. The amount owed to the State shall be as follows, less the amount spread.

		Seed Quantity
Road	<u>Stations</u>	<u>(lbs)</u>
B-Line	52+70 (waste area)	10
	53+60 to 54+20	5
B-8000	60+72 (waste area)	10
	67+86 to 69+18	10
B-8100	0+25 (select borrow source)	5
Spur 1A	0+00 to 32+76	135
Spur 1B	0+00 to 3+82	15

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#### 5.5-4

Constructed or reconstructed subgrades shall be compacted full width except ditch prior to rock application. Compaction shall be by a smooth-drum vibratory roller weighing at least 14,000 pounds. Four complete passes shall be made at a maximum operating speed of 3 mph.

#### 5.5-5

Finished subgrade shall be crowned or outsloped as shown on the TYPICAL SECTION SHEET, and shall be uniform, firm, rut-free, and shaped to ensure surface runoff in an even, unconcentrated manner.

#### **SECTION 6 - DRAINAGE**

#### 6.1-1

On the following road, road surfaces shall be outsloped at 5 inches in 10 feet.

Road B-8000 Stations 67+86 to 69+18

#### 6.2.1-1B

Purchaser shall furnish, install, and maintain corrugated polyethylene pipe (AASHTO specification No. M-294 Type S) and on culverts over 24 inches, aluminized culverts (meeting ASTM A 819, AASHTO M-274 aluminized steel Type 2 and AASHTO M-36 specifications) as designated on the CULVERT LIST. Culvert and flume lengths shall be varied to fit as-built conditions subject to written approval by the Contract Administrator.

#### 6.2.1-2

Annular corrugated bands and culvert ends shall be used on metal culverts. On culverts 24 inches and smaller, bands shall have a minimum width of 12 inches, on culverts over 24 inches, bands shall have a minimum width of 24 inches. Manufacturer's approved connectors shall be used for corrugated polyethylene pipe.

#### 6.2.1-5

On required roads: culverts, downspouts, flumes, bands, and gaskets as listed on the CULVERT LIST which are not installed shall become property of the State.

#### 6.2.1-5A

Metal, concrete, or plastic culverts and bands removed from the road bed shall be removed from State land prior to termination of this contract.

#### 6.2.1-5B

Purchaser shall provide rubberized gaskets for all culverts with a vertical rise greater than 42 inches.

#### 6.2.2.1-1

Culvert, downspout, flume, and energy dissipator installation shall be in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL and the National Corrugated Metal Pipe Association "Installation Manual for Corrugated Steel Drainage Structures".

#### 6.2.2.1-1E

On the following roads, Purchaser shall remove culverts from live streams in accordance with the Hydraulic Project Approval, FILL REMOVAL DETAIL, SETTLING POND AND PUMP DETAIL, and the LIVE STREAM CULVERT REMOVAL PROCEDURE.

Road	<u>Stations</u>
B-Line	53+40 to 54+40
B-8000	67+86 to 69+18

#### 6223-1

Cross drains and surface culverts on road grades in excess of 3% shall be skewed at least 30 degrees from perpendicular to the road centerline, except that cross drain culverts at the low points of dips in roads shall not be skewed.

#### 6.2.2.3-2

Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3% nor more than 10%.

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#### 6.2.2.4-1

Installations of culverts 30 inches in diameter and over shall be subject to written approval by the Region Engineer or their designee prior to making backfill.

#### 6.2.2.4-1B

On the following roads, installation of culvert shall be in accordance with Hydraulics Project Approval and CULVERT INSTALLATION DETAIL.

Road	Stations
B-Line	53+90
B-8000	68+64

#### 6.2.2.5-1

Drainage structure outfalls shall not terminate directly on unprotected soil that will erode. Downspouts, flumes, and energy dissipators shall be installed to prevent erosion.

#### 6.3 - 1

Ditches shall be constructed concurrently with construction of the subgrade. Ditches shall drain to culverts, ditchouts, and natural drainages.

#### 6.3-2E

On the following road, the Purchaser shall clean the ditches and clean the inlet and outlet of all culverts. Work shall be completed prior to grading of the existing surface and shall be done in accordance with the TYPICAL SECTION SHEET and CULVERT AND DRAINAGE SPECIFICATION DETAIL.

Road	•	<b>Stations</b>
B-8500		0+00 to 130+13

#### 6.4 - 1

Catch basins shall be constructed to resist erosion in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions: two feet wide and four feet long with backslopes consistent with Clause 5.1-8: Excavation Slopes.

#### 6.5-1

Headwalls shall be constructed in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts.

#### 6.5-2B

Embankment slopes adjacent to culvert inlets and outlets shall be armored with 8 INCH PLUS ROCK as listed on the CULVERT LIST.

#### **SECTION 7 - ROCK**

#### 7.1-1

Rock for construction and/or reconstruction under this contract may be obtained from a source on State land as listed below at no charge to the Purchaser. Development and use shall be in accordance with a written "Development Plan" prepared by the State. Upon completion of operations, the rock source shall be left in the condition specified in said plan, subject to approval by the Contract Administrator Use of material from any other source must have prior written approval from the Contract Administrator. If other operators are using or desire to use this rock source, a joint operating plan shall be developed. All parties shall follow this plan.

Source Location

Perry Creek Quarry Sec. 15, T18N, R03W, W.M.

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#### 7.1-1A

Rock for reconstruction of roads under this contract may be obtained from existing stockpiles on State land as listed below at no charge to the Purchaser. Purchaser shall remove no more than 90 cubic yards of 1 ½ FOOT MINUS rock. Additional rock may be purchased at a cost of \$10.00 per cubic yard subject to written approval of the Contract Administrator.

#### Source

#### Location

Waddell Basalt Stockpile

SE 1/4 Sec. 21, T17N, R03W, W.M.

#### 7.1 - 3

All rock source operations shall be conducted as directed by the Contract Administrator.

#### 7.2.1-4

Rock shall meet the following specifications for gradation and quality when placed in hauling vehicles. The exact point of evaluation for conformance to specifications will be determined by the Contract Administrator.

#### 7.2.1.1-1

#### 1 INCH MINUS CRUSHED ROCK

% passing 1" square sieve	100%
% passing 3/8" square sieve	50 - 80%
% passing U.S. #4 sieve	30 - 60%
% passing U.S. #10 sieve	25 - 50%
% passing U.S. #40 sieve	15 - 30%
% passing U.S. #200 sieve	5 - 15%

All percentages are by weight.

The portion of ballast retained on ¼ inch sieve shall not contain more than 0.1 percent vegetative debris or trash.

#### 7.2.1.1-3

#### 11/2 INCH MINUS CRUSHED ROCK

% passing 1½" square sieve	100%
% passing 1" square sieve	
% passing 5%" square sieve	
% passing 1/4" square sieve	
% passing U.S. #40 sieve	
% passing U.S. #200 sieve	

All percentages are by weight.

The portion of ballast retained on ¼ inch sieve shall not contain more than 0.1 percent vegetative debris or trash.

#### 7.2.1.1-6B

#### 3 INCH MINUS CRUSHED ROCK

% passing 3" square sieve	100%
% passing 2" square sieve	65 - 95%
% passing 3/4" square sieve	28 - 70%
% passing #4 square sieve	10 - 35%
% passing U.S. #200 sieve	0 - 10%

All percentages are by weight.

The portion of ballast retained on ¼ inch sieve shall not contain more than 0.1 percent vegetative debris or trash.

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#### 7.2.1.1-7B

#### **8 INCH PLUS ROCK**

% equal to, or larger in one dimension	
than the specified size	100%
% passing U.S. #40 sieve	16% Max
% passing U.S. #200 sieve	5% Max

All percentages are by weight.

The portion of ballast retained on ¼ inch sieve shall not contain more than 0.1 percent vegetative debris or trash.

#### 7.2.1.1-9

Landing rock shall be no coarser than "6 INCH MINUS".

#### 7.2.2 - 1

Rock crushing operations shall conform to the following specifications:

- a. The Purchaser shall provide a weatherproof field laboratory equipped with gradation testing equipment. This laboratory shall be available for use by the Contract Administrator during the entire crushing operation.
- b. The crushing operation shall be concluded within 14 working days from the time it begins.
- c. If a smooth roll crusher is used, the maximum size of material fed into it shall be equal to the largest size of the material coming out of it plus 8.5 percent of the roll radius.

#### 7.2.3-1

Measurement of the rock shall be on a cubic yard truck measure basis. Each truck box shall be measured by the Contract Administrator prior to rock hauling. The Contract Administrator shall periodically require that a load be flattened off and its volume calculated. An average of such volumes for each truck shall be used to tally the volume to be hauled. The Purchaser shall provide and maintain load tally sheets for each truck and shall give them to the Contract Administrator upon request.

#### 7.2.4-1

Rock drilling and shooting shall meet the following specifications:

- a. Oversize material remaining in the rock source at the conclusion of the timber sale shall not exceed 5 percent of the total volume mined for the sale.
- b. Oversize material is defined as rock fragments larger than two feet in any dimension.
- c. The Purchaser shall submit an informational drilling and shooting plan to the Contract Administrator 10 working days prior to any drilling. (Form #M-126CEN).

#### 7.4.2-1

Apply at least the minimum rock quantity as shown on ROCK LIST. Rock shall meet the specifications on the ROCK LIST.

#### 7.4.2-1A

On the following road, Purchaser shall apply "1 INCH MINUS CRUSHED" rock on the road shoulder. Rock shall be applied, shaped, and compacted to insure a smooth transition from the asphalt concrete pavement to the shoulder of the road.

Road	<u>Stations</u>
B-Line	52+70 to 61+85

#### 7.4.2-2

On the following road, subgrade shall be approved, in writing, by the Region Engineer or their designee prior to application of rock.

Road	<b>Stations</b>
B-Line	51+20 to 63+35
B-8000	67+86 to 69+18

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#### 7.4.2-3C

On the following road, a grader shall be used to shape the existing surface prior to timber haul.

<u>Road</u> <u>Stations</u> B-8500 0+00 to 130+13

#### 7.4.2-3D

A grader shall be used to shape the subgrade prior to subgrade compaction.

#### 7.4.2-7

Turnarounds, turnouts, and curve widening shall have rock applied to the same depth and specifications as the traveled way.

#### 7.4.2-8

Each lift of rock shall be crowned or outsloped as shown on TYPICAL SECTION SHEET, and shall be uniform, firm, rut-free, and shaped to ensure surface runoff in an even, unconcentrated manner.

#### 7.4.3 - 1

Rock shall be mixed, compacted, and graded in sections not to exceed ½ mile in length. Water shall be added in quantities to facilitate compaction. If directed by the Contract Administrator, a minimum of 6 gallons of water per cubic yard of rock shall be applied.

#### 7.4.3-2

Rock shall be spread and compacted full width in lifts each not to exceed 12 inches uncompacted depth. Compaction shall be by smooth drum vibratory roller weighing at least 14,000 pounds. Four complete passes at a maximum speed of 3 mph shall be made on each lift.

#### 7.4.4-1

Riprap shall consist of angular stone place as indicated in this plan or as directed by the Contract Administrator.

Loose Riprap - The stone for loose riprap shall be hard, sound and durable. It shall be free from segregation, seams, cracks, and other defects tending to destroy its resistance to weather. Loose riprap shall be free of rock fines, soil, or other extraneous material.

a. Heavy Loose Riprap - Shall meet the following requirements for grading:

At Least/Not More Than	Minimum Size	Maximum Size
40% / 90%	1 Ton (½ cu. yd.)	
70% / 90%	300 lbs. (2 cu. ft.)	
10% / 30%		50 lbs.

b. Light Loose Riprap - Shall meet the following requirements for grading:

At Least/Not More Than	Size Range	Maximum Size
20% / 90%	300 lbs. to 1 ton	
80% /	50 lbs. to 1 ton	
10% / 20%		50 lbs.

#### 7.4.4-2

Riprap shall be set in place immediately following construction of the embankment. Placement shall be by zero drop height methods only.

#### 7.5-1E

On the following road, ASPHALT CONCRETE CLASS "A" shall be applied to a depth of 4" in two 2" lifts with a 2% crown as shown on the ASPHALT PAVEMENT DETAIL. The minimum road width paved shall be as shown on the TYPICAL SECTION SHEET.

Application of the ASPHALT CONCRETE CLASS "A" shall conform with all requirements of Section 5-04 (except Section 5.04.5 shall be deleted) of the Washington State Department of Transportation "1998 Standard Specifications for Road, Bridge, and Municipal Construction."

All damaged asphalt resulting from construction shall be replaced in one contiguous mat. Edges will be cut with a saw, perpendicular to the traveled way, and a tack coat of emulsified asphalt applied.

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#### 7.5-1E continued

The Purchaser shall suspend operations when, in the operation of the Contract Administrator, weather is such that satisfactory results cannot be obtained.

Road B-Line

Stations 52+70 to 61+85

#### **SECTION 9 - ROAD AND LANDING DEACTIVATION**

9.2-1

Purchaser shall reduce or relocate landing debris, in a manner approved, in writing, by the Contract Administrator, to avoid landing failures and potential debris slides.

9.2-2

Purchaser shall provide for drainage of the landing surface as approved, in writing, by the Contract Administrator.

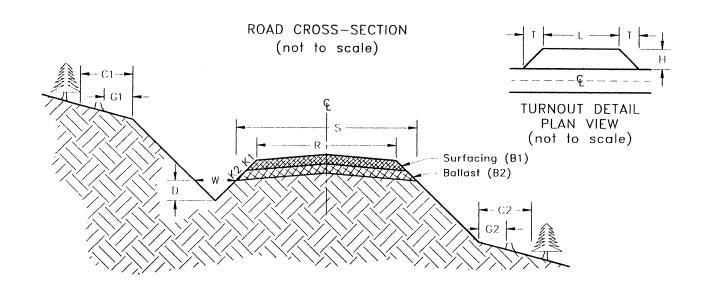
9.2-3

Landing embankments shall be sloped to original construction specifications.

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#### TYPICAL SECTION SHEET

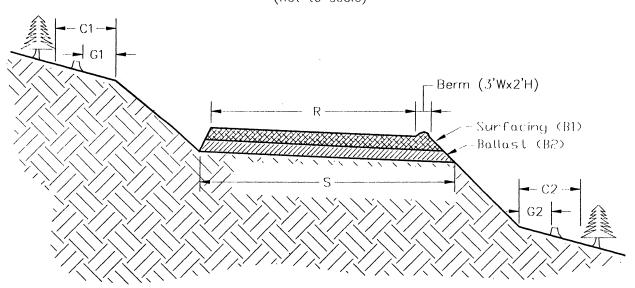
#### **CROWNED**



OUTSLOPED

ROAD CROSS-SECTION

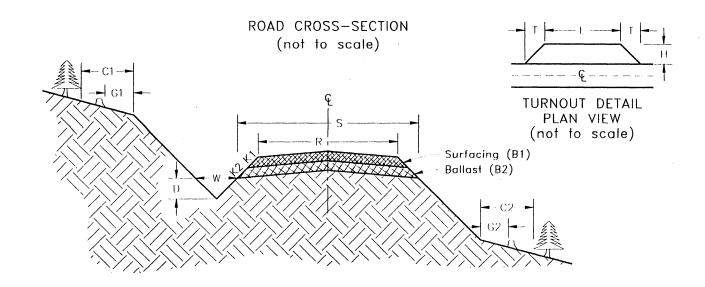
(not to scale)



Road Number	From Station	To Station	Tolerance Class	Subgrade Width	Road Width	Di Width	tch Depth	Crown in. @ CL		obing nits		aring nits
				S	R	W	D		GI	G2	C1	C2
B-Line	51+20	52+70	C	18'	16'	3'	1'	5"	2'	2'	5'	5'
	52+70	61+85	A	23'	16'	3'	1'	2"	2'	2'	5'	5,
	61+85	63+35	С	18'	16'	3'	1,	5"	2'	2'	5'	5,
B-8000	67+86	69+18	Α	21'	16'	3'	1,	Outslope	2'	2'	5'	5,
B-8500	0+00	130+13	С	-	12'	3,	1'	4"	-	-	-	-
Spur 1A	0+00	32+76	С	16'	12'	3,	1'	4"	5'	5'	10'	10'
Spur 1B	0+00	3+82	С	16'	12'	3,	1'	4"	5'	5'	10'	10'
		·										
										-		

**FIDGET** 

#### **ROCK LIST**



#### **BALLAST**

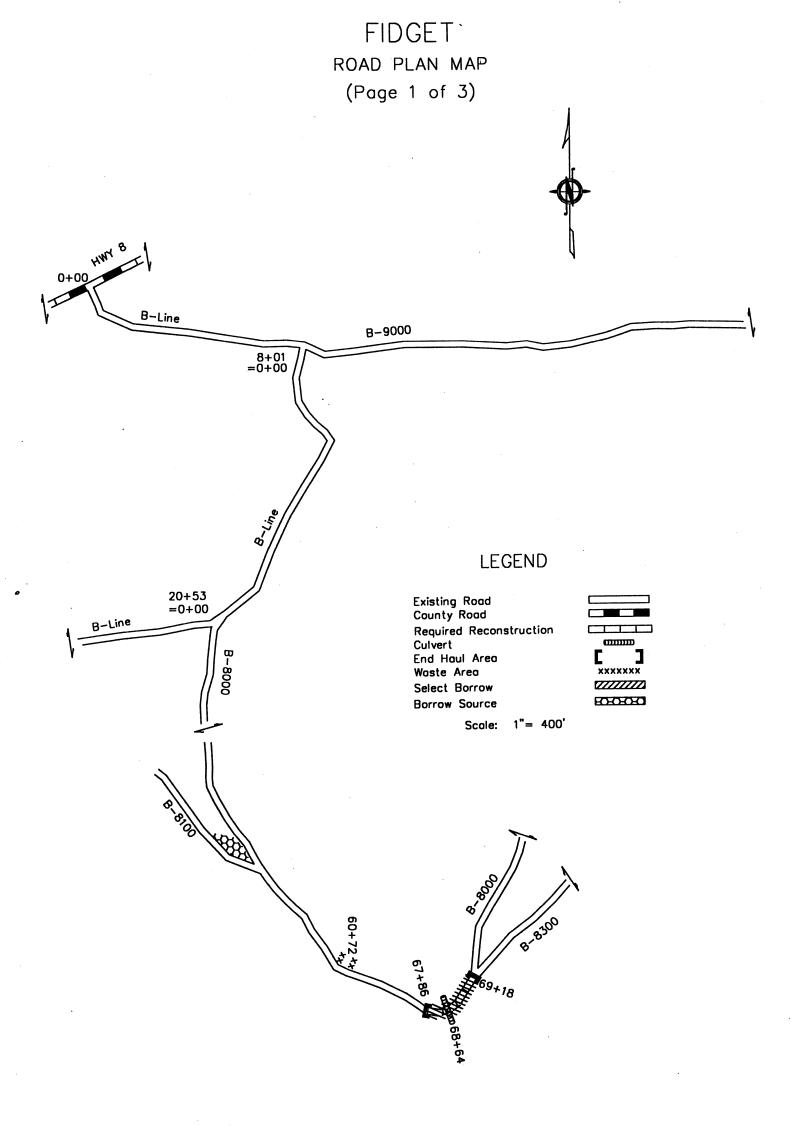
	From	То	Rock	Compacted Rock	C.Y./	# of	C.Y.	Rock		Turnout	
Road Number	Station	Station	Slope	Depth	Station	Stations	Subtotal	Source	Length	Width	Taper
			K2	B2	3 INCI	I MINUS CR	USHED	Perry Creek Quarry	L	Н	Т
B-Line	52+70	61+85	1 1/2:1	12"	98	9.15	897				
	Culvert bed	ding and back	ក់ព	'			650				
B-8000	67+86	69+18	1 1/2:1	12"	89	1.32	117				İ
	Culvert bed	ding and back	fill	•			130				
Spur 1A	0+00	32+76	1 1/2:1	12"	68	32.76	2,228				
	Turnouts (3)		1 1/2:1	12"	68	3.00	204		50'	10'	50'
	Landing (1)		1 1/2:1	-	-	-	50			l	
Spur 1B	0+00	32+76	1 1/2:1	12"	68	3.82	260		,		
	Landing (1)		1 1/2:1	-		-	50				
						B INCH PLU	S				
B-8000	Culvert	'					2				
Spur 1A	Culverts						7				
					LIGH	T LOOSE R	IPRAP				
B-Line	Culvert emb	ankment armo	oring				80				
					1 ½ FOOT MINUS			Waddell Basalt Stockpile			
B-Line	Culvert fill	naterial		•			90				

3 INCH MINUS CRUSHED TOTAL 4,586 Cubic Yards 8 INCH PLUS TOTAL 9 Cubic Yards LIGHT LOOSE RIPRAP TOTAL 80 Cubic Yards 1 ½ FOOT MINUS TOTAL 90 Cubic Yards

#### **SURFACE**

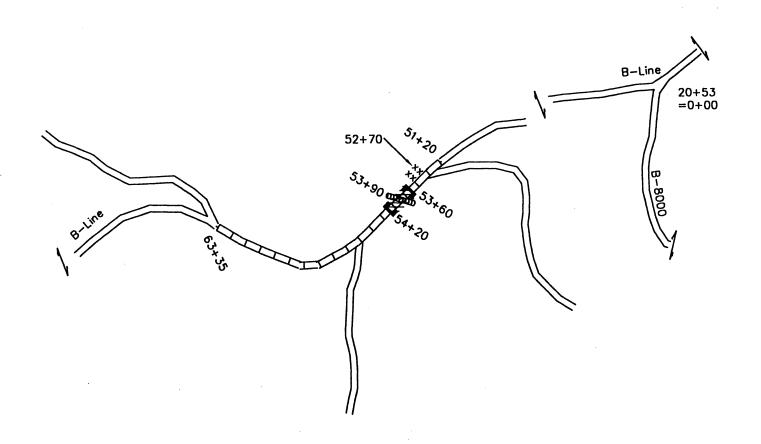
Road Number	From Station	To Station	Rock Slope K1	Compacted Rock Depth	C.Y./ Station	# of Stations MINUS CRUS	C.Y. Total	Rock Source Perry Creek Quarry
			<u></u>	L				Terry Creek Quarry
B-Line	51+20	52+70	1 1/2:1	6"	39	1.50	59	
	52+70	61+85	1 1/2:1	2"	- 15	9.15	137	
	61+85	63+35	1 1/2:1	6"	39	1.50	59	
	Shoulders	1	1 1/2:1	6"	8	8.65	69	
	Turnouts (2)		1 1/2:1	6"	39	2.00	78	
	1	i	i		1 ½ INCH	I MINUS CRI	USHED	
B-8000	67+86	69+18	1 1/2:1	6"	39	1.32	51	
Spur 1A	0+00	32+76	1 1/2:1	4" ·	19	32.76	622	
	Turnouts (3)	I	1 1/2:1	4"	· 19	3.00	57	
Spur 1B	0+00	3+82	1 1/2:1	4"	19	3.82	73	
	1						·	

1 INCH MINUS CRUSHED TOTAL 402 Cubic Yards 1 ½ INCH MINUS CRUSHED TOTAL 803 Cubic Yards



## FIDGET ROAD PLAN MAP (Page 2 of 3)

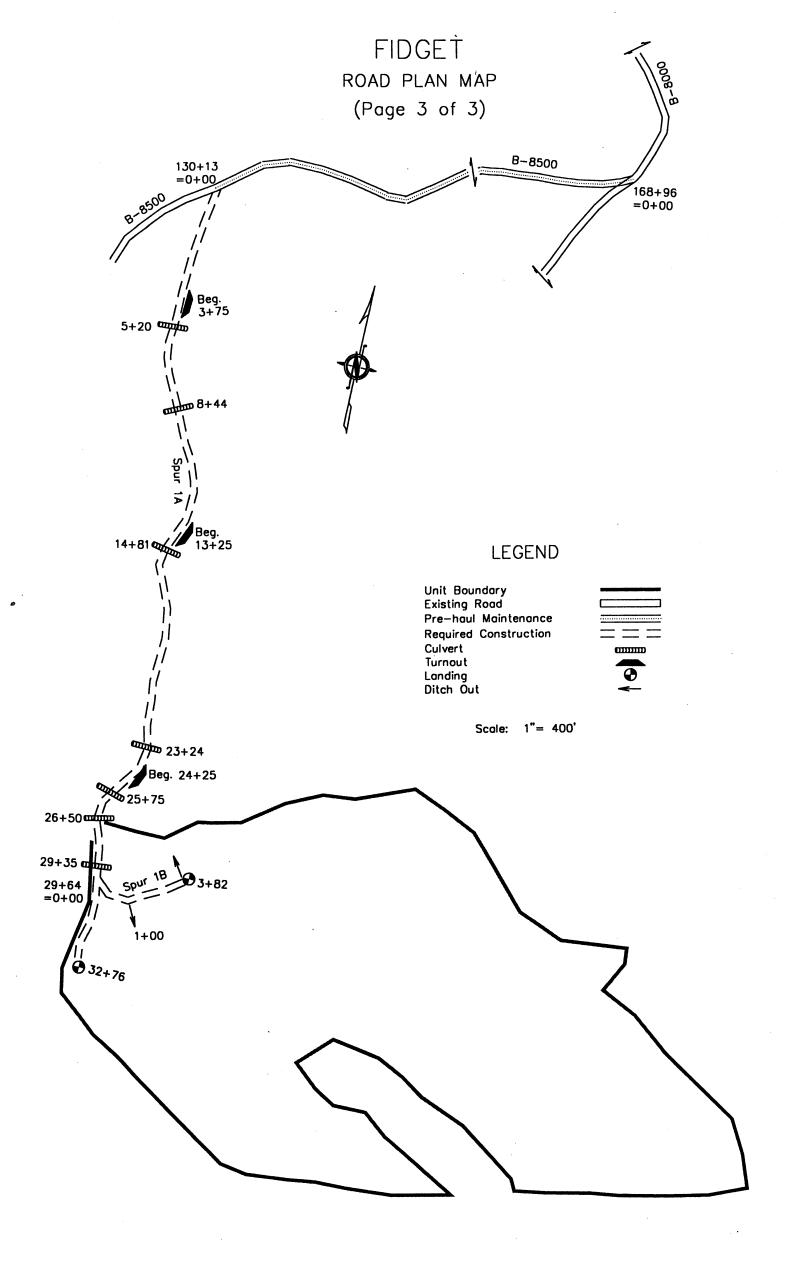




#### **LEGEND**

Existing Road Required Reconstruction Culvert End Haul Area Waste Area Select Borrow

Scale: 1"= 400'



#### **CULVERT LIST**

Road		Cu	lvert		Length (ft)		R	iprap (C.Y	7.)	Backfill	Placement	Const.	
Number	Location	Dia.	Gauge	Culvert	Downspt	Flume	Inlet	Outlet	Туре	Material	Method	Staked	Remarks
			If										
			Steel										
B-Line	53+90	96"	10	66	-	-	40	40	LL	3"/SB	-	-	Aluminized steel,
B-8000	68+64	36"	12	64	_	-	1	1	8"	3"/SB	_		3" x 1" corrugations Aluminized steel
Spur 1A	5+20	18"	-	34	-		0.5	0.5	8"	NT	_	_	CPP
	8+44	18"	-	32	-	-	0.5	0.5	8"	NT	-	-	СРР
	14+81	18"	-	34	-	-	0.5	0.5	8"	NT	- ,	-	СРР
	23+24	18"	-	32	-	-	0.5	0.5	8"	NT	-	-	СРР
	25+75	18"	-	36	-	-	0.5	0.5	8"	NT	-	-	CPP
	26+50 29+35	24" 18"	-	36 32	-	-	0.5 0.5	0.5 0.5	8" 8"	NT NT	<u>-</u>	-	CPP CPP
	29+33	10	-	32	-	-	0.5	0.5	0	111			CII
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CULVERT BACKFILL AND BASE PREPARATION (For culverts less than 36")



#### Key:

8" - 8 Inch Plus Rock

NT - Native (bank run)

3" - 3 Inch Minus Crushed Rock

SB - Select Borrow

LL - Light Loose Riprap

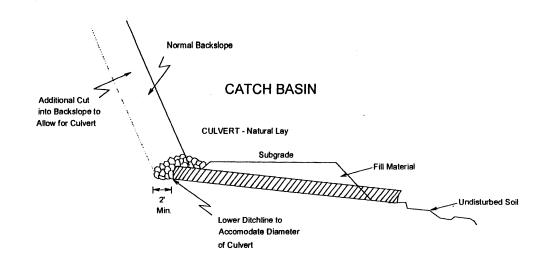
Flume - Half round pipe

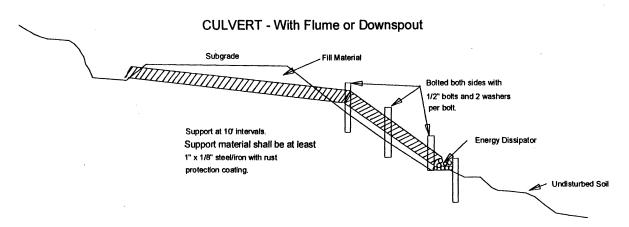
Downspout - Full round pipe

CPP - Corrugated Polyethylene Pipe

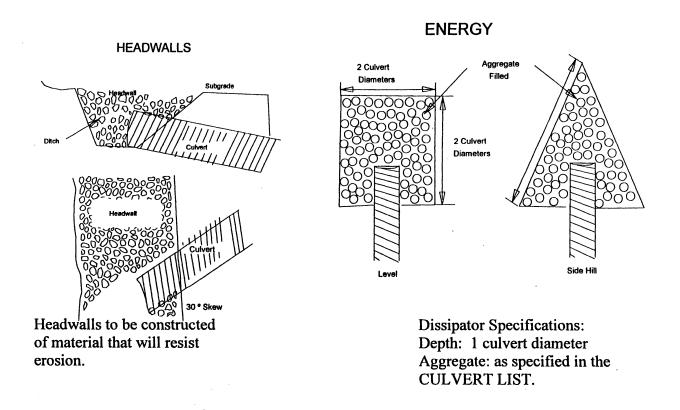
#### **CULVERT AND DRAINAGE SPECIFICATION DETAIL**

(Page 1 of 2)





Proper preparation of foundation and placement of bedding material shall precede the installation of all culvert pipe. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform dense unyielding base. The backfill material shall be placed so that the pipe is uniformly supported along the barrel.



**FIDGET** 

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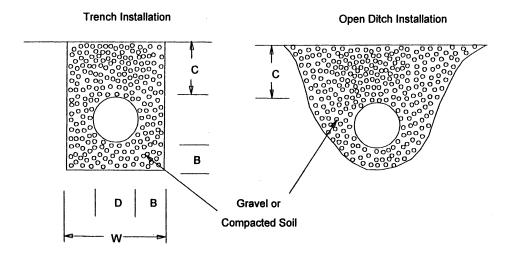
#### CULVERT AND DRAINAGE SPECIFICATION DETAIL

(Page 2 of 2)

#### POLYETHYLENE PIPE INSTALLATION

#### **INSTALLATION REQUIREMENTS:**

- 1. Crushed stone, gravel, or compacted soil backfill material shall be used as the bedding and envelope material around the culvert. The aggregate size shall not exceed 1/6 pipe diameter or 4" diameter, whichever is smaller.
- 2. The corrugated pipe shall be laid on grade, on a layer of bedding material as shown for the two types of installations. If native soil is used as the bedding and backfill material, it shall be well compacted in six inch layers under the haunches, around the sides and above the pipe to the recommended minimum height of cover.
- 3. Either crushed aggregate or flexible (asphalt) pavement may be laid as part of the minimum cover requirements.
- 4. Site conditions and availability of bedding materials often dictate the type of installation method used.
- 5. The load bearing capability of flexible conduits is dependent on the type of backfill material used and the degree of compaction achieved. Crushed stone and gravel backfill materials typically reach a compaction level of 90-95% AASHTO standard density without compaction. When native soils are used as backfill material, a compaction level of 85% is required. This minimum compaction can be achieved by either hand or mechanical tamping.



## MINIMUM DIMENSIONS Trench or Open Ditch Installation

Nominal Diameter	Minimum Thickness	Minimum Cover	Min. Trench Width
D	В	С	W
18"	6"	12"	36"
24"	6"	12"	42"
30"	6"	12"	48"
36"	6"	12"	54"

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## STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

1. <u>CONSTRUCTION AND RECONSTRUCTION</u> (Prior to acceptance to the contract or acceptance on a timber sale).

#### A. Cuts and Fills

- 1. Maintain slope lines as constructed. Remove slides from the ditches and roadway. Replace fills to 1½:1 slopes with selected material or as directed. Remove overhanging material from the cut slopes.
- 2. Material from slides or other sources requiring removal shall not be deposited in streams or at locations where it will erode into streams or water courses.
- 3. Undesirable slide materials and debris shall not be mixed into the surface material.

#### B. Surface

- 1. Grade and shape the road surface, turnouts, and shoulders to the original crown, inslope or outslope as directed to provide suitable traveled surface and surface water runoff in an even, unconcentrated manner.
- 2. Blading must not undercut the backslope at the bottom of the ditchline or cut geotextile at centerline.
- 3. Watering may be required to control dust and to retain fine surface rock.
- 4. Desirable surface material shall not be bladed off the roadway.
- 5. Replace surface material lost or worn away.
- 6. Remove berms except as directed by the State.
- 7. Barrel spread soft spots to prevent degradation of geotextile.

#### C. Drainage

- 1. Keep ditches and drainage channels at outlets and inlets of culverts clear of obstructions and functioning as intended.
- 2. Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This must be done even during periods of inactivity.
- 3. Add stable material at the outlet end of the culvert as needed to stabilize the stream bed.
- 4. Headwalls: maintain to the road shoulder level with material that will resist erosion.
- 5. Keep silt bearing surface runoff from getting into live streams.

#### D. Structures

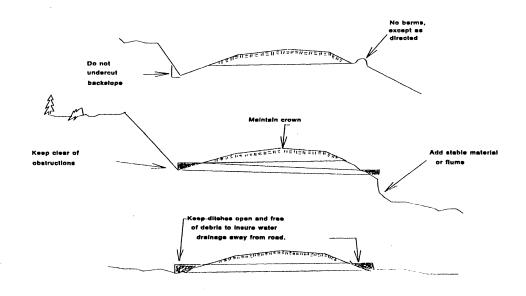
Repair bridges, culverts, cattleguards, fences, and other road structures to the condition required by the construction specifications.

#### E. Termination of Use or End of Season

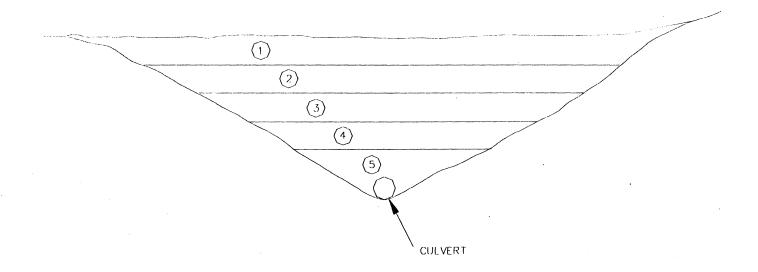
Do maintenance work to minimize damage from the elements such as blading to insure correct runoff, ditch, and culvert cleaning and water bars.

#### F. Debris

Remove fallen timber, limbs, and stumps from the slopes or roadway.

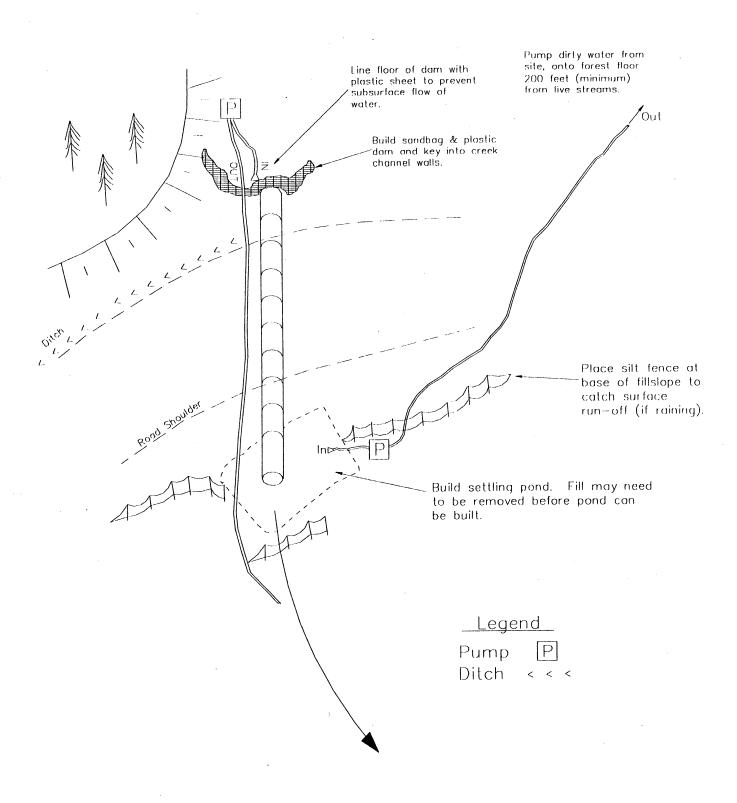


FIDGET 30-072853 MARCH 1, 2001 Page 21 of 29



- Remove fill in layers not to exceed 3 feet.
- Channel slopes shall be according to Section 6 — DRAINAGE and the Live Stream Culvert Removal Procedure

#### SETTLING POND AND PUMP DETAIL



FIDGET 30-072853 MARCH 1, 2001 Page 23 of 29

#### LIVE STREAM CULVERT REMOVAL PROCEDURE

Order of work is as follows, deviations shall be approved, in writing, by the Contract Administrator.

- 1) Purchaser shall notify the State of intent to start project, and a pre-work conference shall be held before move in of equipment. State will designate a representative that will remain on site at all times when work is being performed in creek channel.
- 2) Assemble the items on the "Materials List" onsite before proceeding.
- 3) Remove 95% of fill (see FILL REMOVAL DETAIL).
- 4) Set up pumps (3 required, with one as backup).
- Dam up stream with sandbags and line floor of dam with plastic (to prevent sub-surface water flow), place clean rock on plastic to hold in place, and key leading edge of plastic into channel bottom see SETTLING POND AND PUMP DETAIL. Build a settling pond at culvert outlet. Fill may need to be removed before the settling pond installation due to space limitations. Pump clean water at catch basin around work site and back into stream. Dirty water shall be pumped away from site and onto forest floor a minimum of 200 feet from live streams. Silt fence shall be erected at base of fill slope and bottom edge of fence shall be keyed into slope and held in place with rocks to prevent water from flowing under the silt fence.
- 6) Remove remainder of fill and culvert.
- 7) Install culvert as described in the Road Plan.
- 8) Backfill settling pond.
- 9) Cover exposed soils within 100 feet of all live streams with straw (minimum depth of 8 inches) and grass seed.

#### Materials List:

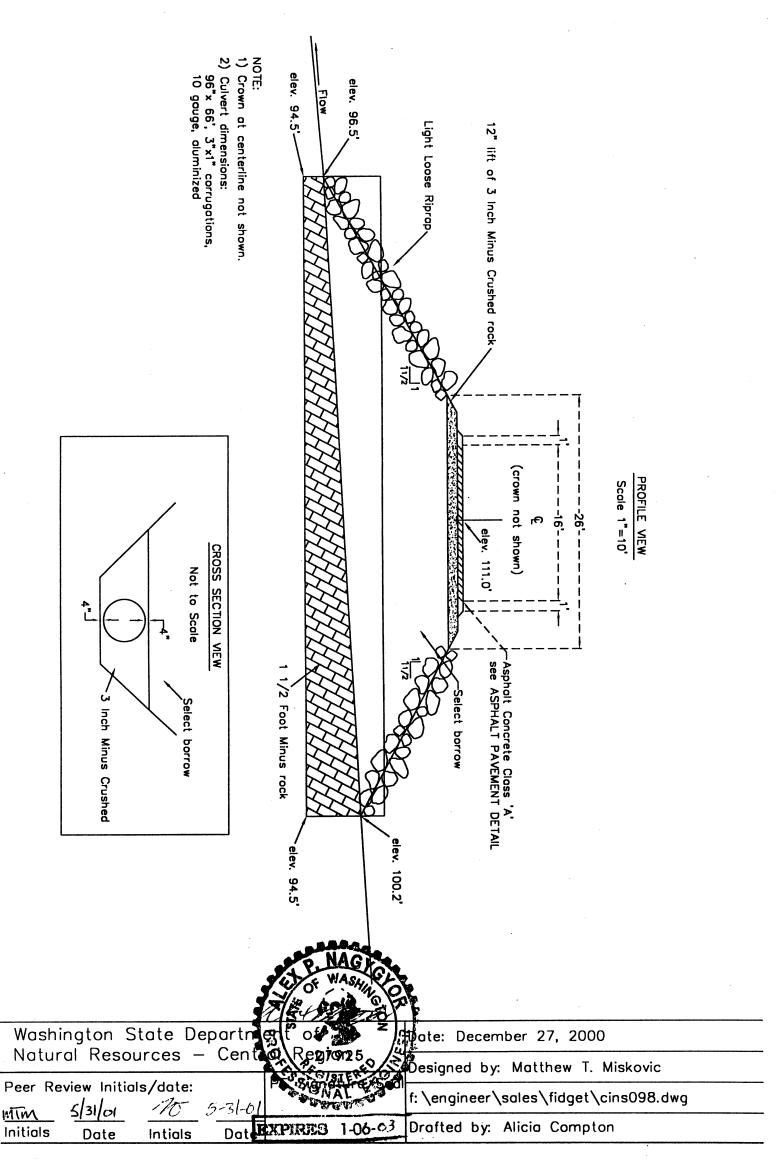
- 3 pumps, (one as a backup) The clean water pump (dam at culvert catch basin) shall have a minimum capacity of 1200 gallons per minute. The dirty water pump (settling pond) and the backup pump shall each have a minimum capacity of 600 gpm. Culvert removal should not start during rain or threat of rain:
- 10,000 square feet plastic sheet;
- 400 feet of silt fence and stakes;
- 50 bales of straw.

FIDGET 30-072853 MARCH 1, 2001 Page 24 of 29

## CULVERT INSTALLATION DETAIL

B-Line @ 53+90

(Page 1 of 2)

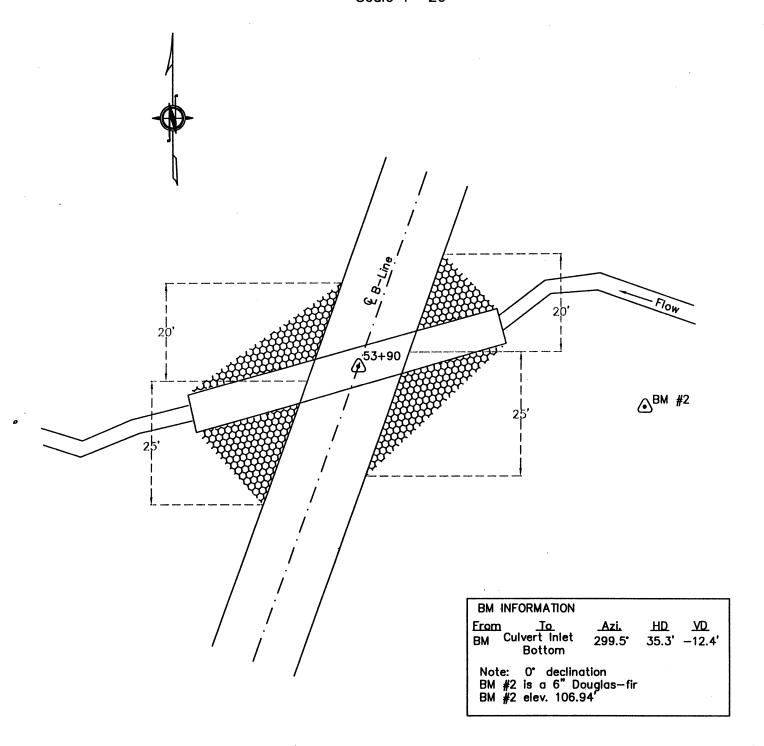


#### CULVERT INSTALLATION DETAIL

B-Line @ 53+90

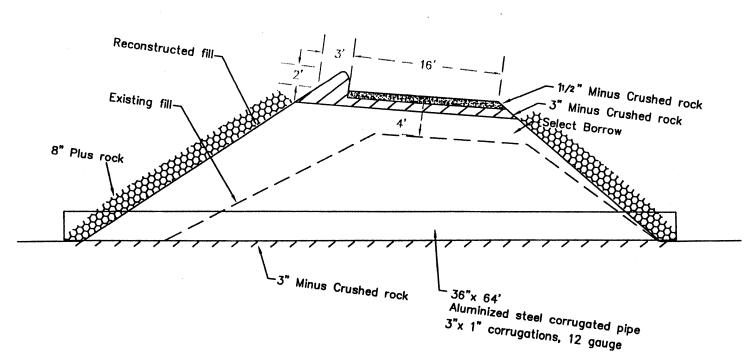
(Page 2 of 2)

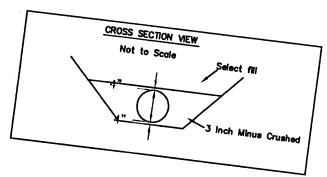
PLAN VIEW
Scale 1"=20'



# CULVERT INSTALLATION DETAIL B-8000 @ 68+64 SCALE 1" = 10'

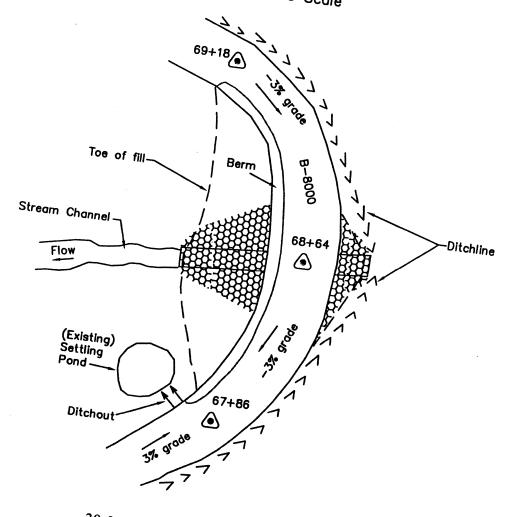
## PROFILE VIEW





## PLAN VIEW

## Not to Scale



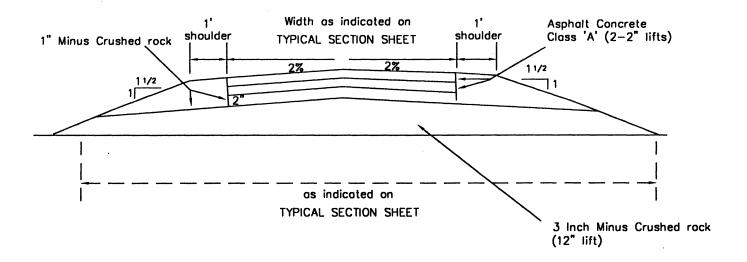
30-072853

MARCH 1, 2001

## ASPHALT PAVEMENT DETAIL

Not To Scale

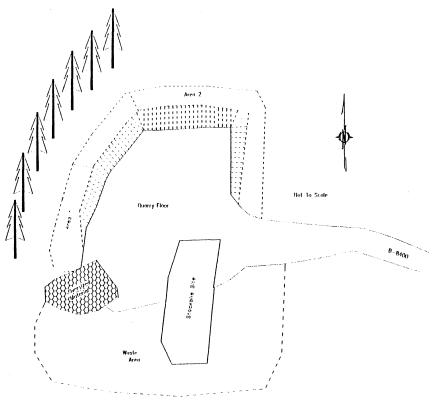
#### CROSS SECTION



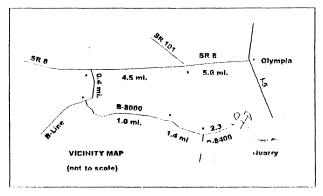
# STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES CENTRAL REGION

#### PERRY CREEK QUARRY DEVELOPMENT PLAN

Section 15, Township 18 North, Range 03 West, W.M.



- 1. Development shall begin in Area 1 and proceed west.
- 2. Quarry floor shall be outsloped or ditched to ensure a self draining condition.
- 3. Overburden shall be stripped a minimum of 10 feet from quarry walls, and trees cleared with approval of Contract Administrator.
- 4. Walls and faces shall be no steeper than 1/4:1.
- 5. Overburden shall be placed in the Waste Area.
- 6. Woody debris shall be piled and kept separate from other waste material.
- 7. Maximum quarry face height shall be 30 feet, and bench width not less than 20'.
- 8. Benches shall be left with safety berms or access blocked to highway vehicles. Quarry floor shall be cleared of all loose material and sorted in a manner, approved in writing, by the Contract Administrator.
- 9. All operations shall be carried out in compliance with all regulations of:
  - A. "Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations" (30 CFR) U. S. Department of Labor, Mine Safety and Health Administration.
  - B. "Safety Standards Metal and Nonmetallic Mines, Quarries, Pits, and Crushing Operations" (296-61 WAC), Washington Department of Labor and Industries.
  - C. "Safety Standards For Construction Work" (296-155 WAC), Washington Department of Labor and Industries.



FIDGET 30-072853 MARCH 1, 2001 Page 29 of 29

FPA #2508159

Received:

05/21/2001

State of Washington Dept of Natural Resources DECISION ACTIVITY PACKET

Decision Date: 06/26/2001

Expiration Date: 06/26/2003

EARR Tax Credit - NOT ELIGIBLE

Risk Assessment Issue: Watershed Analysis prescriptions for WAU

Habitat Conservation Plan or other formal agreemt Risk Assessment Issue:

of Section 29; T18R03W of Section 32; T18R03W Legal: SWSW Legal: N2N2 W.M. W.M. of Section 30; T18R03W Legal: SWNE of Section 19; T18R03W Legal: SESW, SWSE W.M. of Section 20; T18R03W of Section 31; T18R03W of Section 21; T18R03W W.M. Legal: NENW

Legal: W.M.

W.M. Legal: NENE

of Section 28; T18R03W Legal: W.M.

County: THURSTON

Assigned to: KRISTIAN KNUTZEN Region: CENTRAL

Operator: CENTRAL REGION

DEPT OF NATURAL RESOURCES

P.O. Box S-3

Municipal subdivision

Phone: (360) 748-2383 Landowner:

DEPT OF NATURAL RESOURCES CENTRAL REGION

P.O. Box S-3

Municipal subdivision

Timber Owner: Phone: (360) 748-2383

DEPT OF NATURAL RESOURCES CENTRAL REGION

P.O. Box S-3

Municipal subdivisioTtax#: 800888888

This application is | APPROVED subject to the following:

Activity under this application must follow Washington State Forest Practice Laws and Rules in addition to any conditions on the application.

Compliance with this application does not ensure compliance with the Endangered Species Act or other Federal, State or Local laws.

\_\_\_\_\_

Classified: CLASS III-30

Phone: (360) 748-2383

FPA #2508159

State of Washington

Received:

05/21/2001 Decision Date: 06/26/2001 Dept of Natural Resources Classified: CLASS III-30 DECISION ACTIVITY PACKET

Expiration Date: 06/26/2003

- 2 -

#### FPAN-2508159 Conditions

THE FOLLOWING IS PROVIDED FOR YOUR INFORMATION: RCW 76.09.220 (8) provides any aggrieved person the right to appeal the approval or disapproval of a forest practices application. RCW 43.21C.075 provides any aggrieved person the right to appeal issues arising under the State Environmental Policy Act. Appeals must be filed within 30 days of the approval or disapproval of the forest practices application. Appeals must be filed with the FOREST PRACTICES APPEALS BOARD, PO BOX 40903, 4224 6TH AVE SE BLDG #2, LACEY WA 98504-0903. Appeals must be filed in writing on the form required in Title 223-08. Concurrently with filing of the Forest Practices Appeals Board, copies of the appeals must also be filed with the OFFICE OF THE SUPERVISOR, DEPT OF NATURAL RESOURCES, 1111 WASHINGTON ST SE, 4TH FLOOR NATURAL RESOURCES BLDG., PO BOX 47001, OLYMPIA, WA 98504 and with the ATTORNEY GENERAL, PO BOX 40100, OLYMPIA, WA 98504-0100. 98504-7001.

TRAXS Flag: Water rights reported by Dept. of Ecology

Within city limits?	NO
Harvest within 500 ft of park?	NO
Harvest within park?	NO
Land platted after 1/1/60?	NO
Intends to convert w/in 3 years?	NO
Has Conversion Option Harvest Plan?	NO

#### WATER AND WETLAND INFORMATION SECTION

		Wat	er Ty	рe		Wetlands Type			
Works in Waters	1	2	3	4	5	Forested	A	В	
Road Construction	•	•	3	•	•	•	•	•	
Water Crossing	•	•	3	•	•	•	•	•	
Falling / Bucking		•	•	•	5	•	•	•	
Cable Yarding	•	•		•	•	•	•	•	
Suspend Cables	•	•	3	4	5	•		•	
Ground Skidding	•	•	•	•	•	•	•	•	
Operate Equipment	•	•	•	•	•	•	•	•	•
Apply Chemicals	•	•			•	•	•	•	
Other Activity	•	•		•		•	•	•	
rating w/in 200 ft of typ	e 1-	3 wat	er?			YES	Distan	.ce:	0

Operating w/in 200 ft of type 1-3 water? YES Operating w/in 25 ft of type 4-5 water? YES NO Aware of any water intakes w/in 1/2 mile downstream?

FPA #2508159

State of Washington

Received:

05/21/2001 Decision Date: 06/26/2001

Dept of Natural Resources Classified: CLASS III-30 DECISION ACTIVITY PACKET

Expiration Date: 06/26/2003

- 3 -

Trees to be removed from max. width RMZ? Is this project in or near a wetland?

NO

Will this project fill / drain a wetland?

NO

NO

#### ROAD CONSTRUCTION SECTION

Type of construction	Length (ft)	Endhaul (ft)	Steepest Slope
New permanent road construction	3,658	0	50%
Reconstruction of existing road	1,447	392	30%
Maintenance of existing road	13013	0	30%

#### TIMBER HARVEST SECTION

Unit No.	Type of Harvest	Post-Harvest Trees/Acre	Method of Harvest				Volume (MBF)	
1	EVEN AGE	10	CABLE SHOVEL	74.0	66.9	93	2,582	

Green Recruitment Trees will be: CLUMPED Green Recruitment Trees will be: Wildlife Reserve Trees will be: **EVEN** CLUMPED Wildlife Reserve Trees will be: **EVEN** 

Double-wide RMZ for green-up? Unit to be reforested?

NO YES

NO

BY PLANTING DOUGLAS FIR

UMA Acres: NONE NONE Length of RMZ: Length of WMZ: NONE

AERIAL CHEMICAL APPLICATION SECTION

Type of Chemical Application:

NONE

Dept of Agriculture Experimental Use Permit?

#### APPLICANT PROVIDED DETAILS

THIS APPLICATION IS FULLY COMPLIANT WITH THE HABITAT CONSERVATION PLAN. NEW CONSTRUCTION CENTER LINES ARE MARKED WITH STAKES AND ORANGE RIBBON. LEAVE TREE

FPA #2508159

State of Washington

Received: 05/21/2001 Decision Date: 06/26/2001 Dept of Natural Resources Classified: CLASS III-30

DECISION ACTIVITY PACKET

Expiration Date: 06/26/2003

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ARE MARKED WITH EITHER BLUE PAINT AND/OR YELLOW LEAVE TREE AREA BOUNDARY TAGS. BOUNDARIES ARE MARKED WITH TIMBER SALE BOUNDARY TAGS. RIGHT OF WAY IS MARKED WITH RIGHT OF WAY BOUNDARY TAGS. FIDGET TS #72853.

#### DNR STAFF COMMENTS

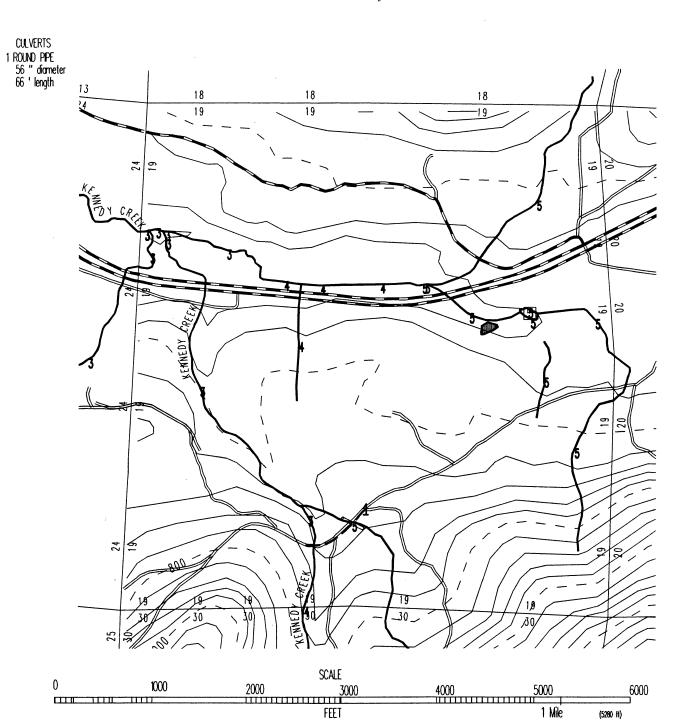
SHUTDOWN ZONE 655/651N; PER MM ADDENDUM STATE HAS HCP. PER WATER TYPE ADDENDUMS STREAMS ARE TYPE 3, TYPE4, AND TYPE 5. IN KENNEDY WAU.

END OF REPORT - FPA #2508159

## FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 18 NORTH, RANGE 03 WEST (W.M.), SECTION 19

APPLICATION # 2508159



MAP DATE: May 22, 2001

CONTOUR INTERVAL:

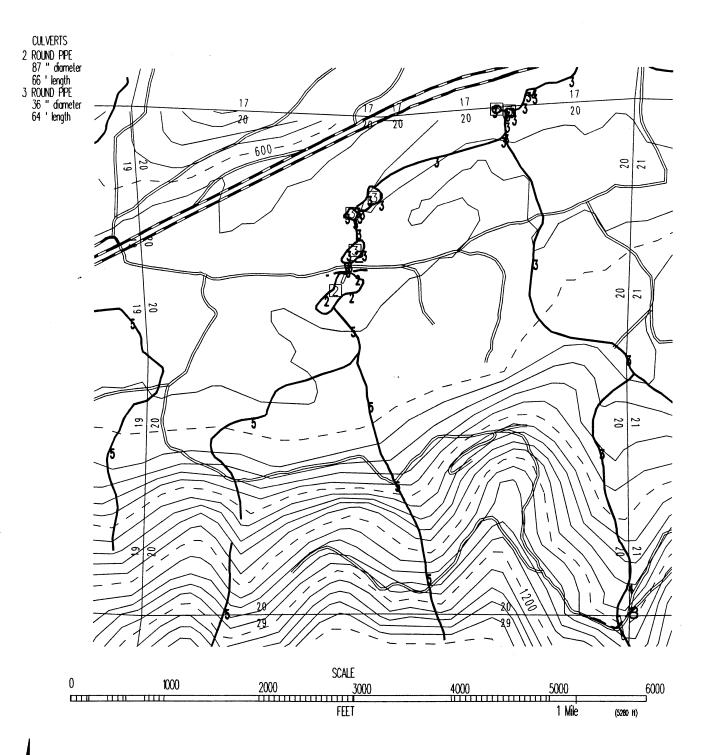
40 Feet

NAD 27

LEGEND: See Instructions DISCLAIMER: See Legend

MAP 1 of 8

TOWNSHIP 18 NORTH, RANGE 03 WEST (W.M.), APPLICATION # 2508159



MAP DATE: May 22, 2001

CONTOUR INTERVAL:

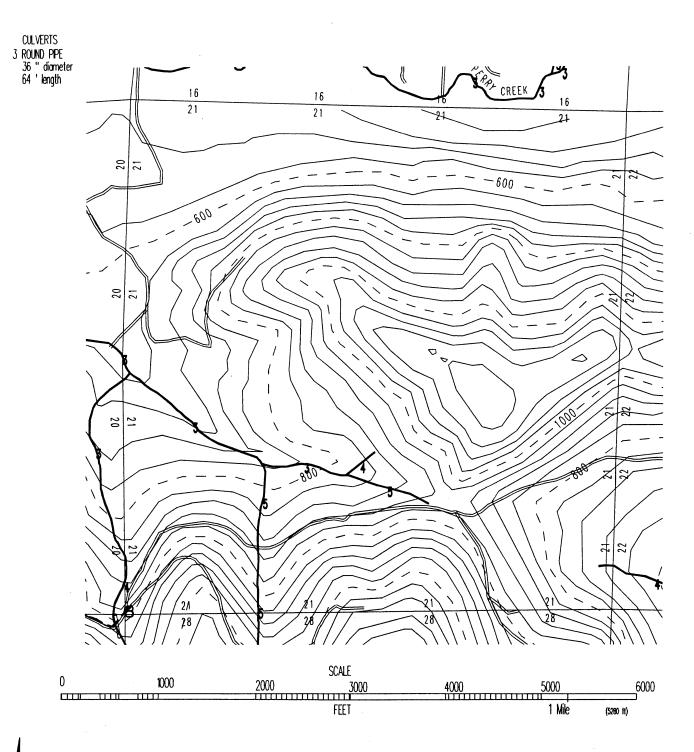
NAD 27

40 Feet

LEGEND: See Instructions DISCLAIMER: See Legend

MAP 2 of 8

TOWNSHIP 18 NORTH, RANGE 03 WEST (W.M.), SECTION 21 APPLICATION # 2508159



MAP DATE: May 22, 2001

CONTOUR INTERVAL:

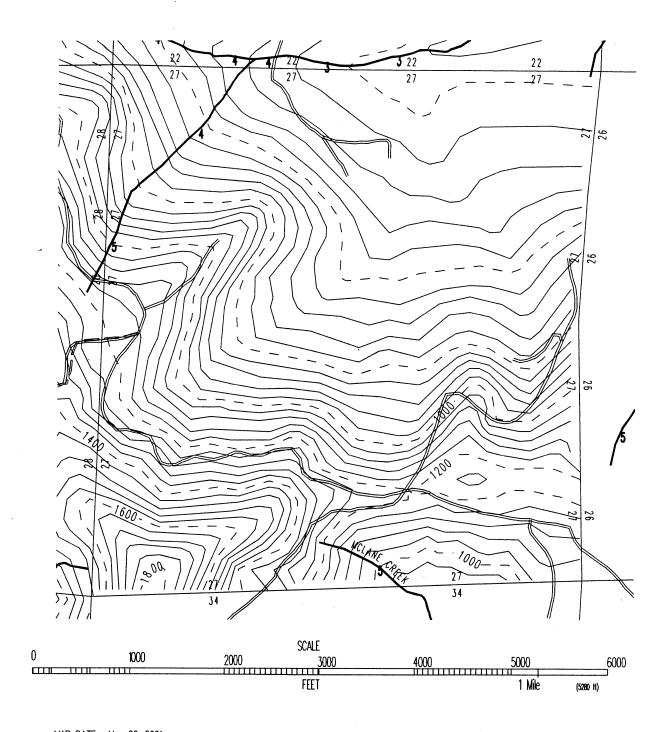
40 Feet

NAD 27

LEGEND: See Instructions DISCLAIMER: See Legend

MAP 3 of 8

WEST APPLICATION # 2508159



MAP DATE: May 22, 2001

CONTOUR INTERVAL: 40 Feet

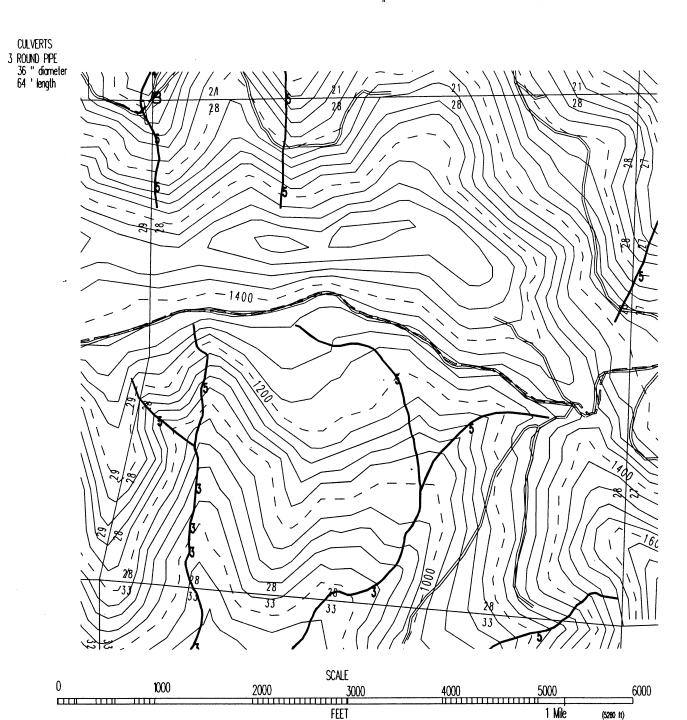
NAD 27

LEGEND: See Instructions

DISCLAIMER: See Legend

MAP 4 of 8

WEST APPLICATION # 2508159



MAP DATE: May 22, 2001

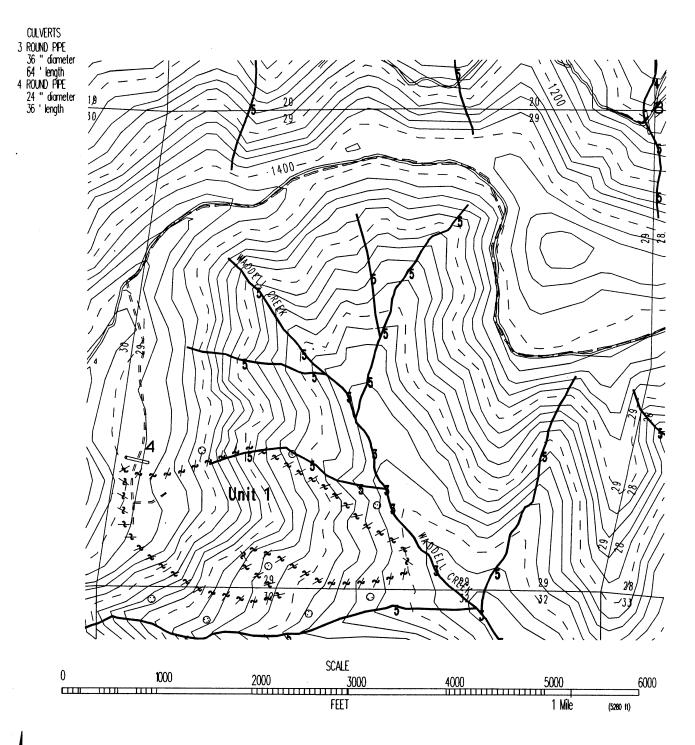
CONTOUR INTERVAL: 40 Feet

NAD 27

LEGEND: See Instructions DISCLAIMER: See Legend

MAP 5 of 8

NORTH, RANGE 03 WEST (W.M.), SECTION 29 APPLICATION # 2508159



MAP DATE: May 22, 2001

CONTOUR INTERVAL: 40 Feet

NAD 27

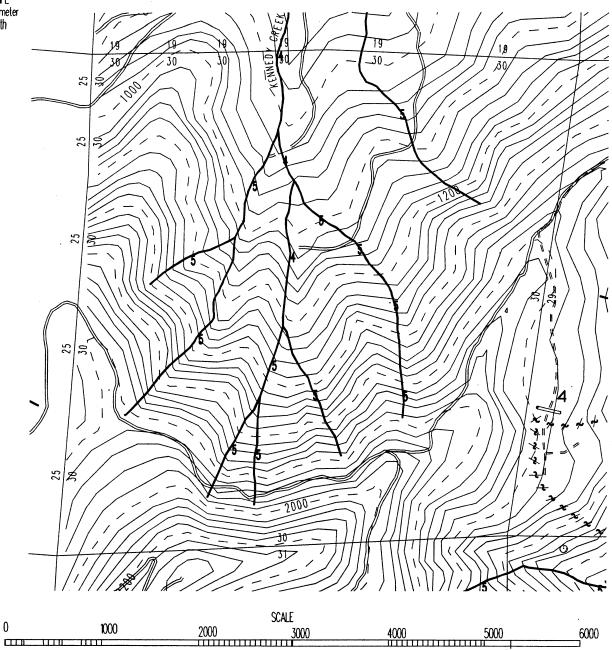
LEGEND: See Instructions

DISCLAIMER: See Legend

MAP 6 of 8

WEST (W.M.), SECTION 30 TOWNSHIP 18 NORTH, RANGE 03 APPLICATION # 2508159





MAP DATE: May 22, 2001

CONTOUR INTERVAL: 40 Feet

NAD 27

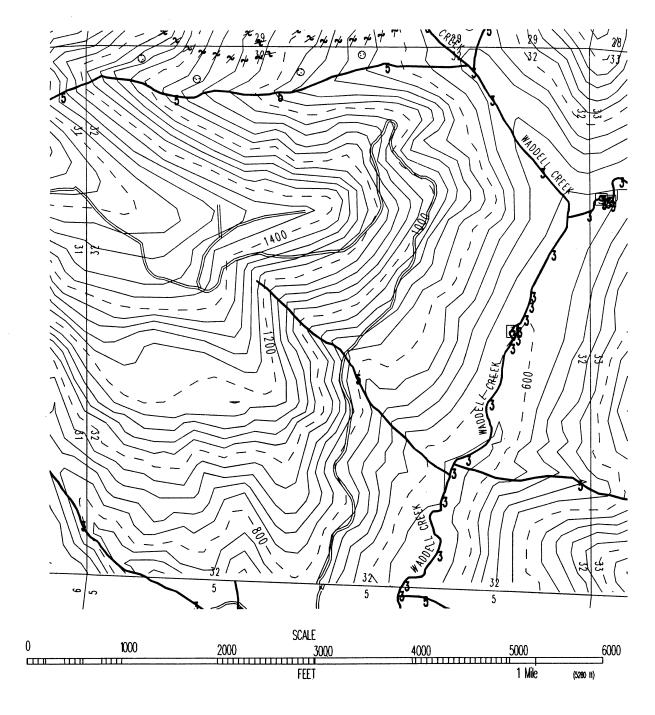
LEGEND: See Instructions DISCLAIMER: See Legend

(5280 ft)

MAP 7 of 8

FEET

RANGE 03 WEST (W.M.'), A P P L I C A T I O N # 2 5 0 8 1 5 9



MAP DATE: May 22, 2001

CONTOUR INTERVAL: 40 Feet

NAD 27

LEGEND: See Instructions DISCLAIMER: See Legend

MAP 8 of 8



### H. JRAULIC PROJECT APPROVAL

RCW 77.55.100 - appeal pursuant to Chapter 34.05 RCW

State of Washington
Department of Fish and Wildlife
Region 6 Office
48 Devonshire Road
Montesano, Washington 98563-9618

DATE OF ISSUE: July 17, 2001 Fidget 7.3.

: Kris

LOG NUMBER: 25-08159-02

**PERMITTEE** 

**AUTHORIZED AGENT OR CONTRACTOR** 

Department of Natural Resources 1405 Rush Road

Not Applicable

Chehalis, WA 98532

PROJECT DESCRIPTION: Tailholds, Culvert Replacement and Bridge Installation

PROJECT LOCATION:

14.0001 Unnamed

B-Line, MP 1.14 and .96, B-9000, Capitol Forest, Thurston County, WA

# WRIA WATER BODY

TRIBUTARY TO

Perry Creek

1/4 SEC. SEC. TOWNSHIP RANGE COUNTY

19- 8 North 03 West

West Thurston

21,2 8-32

#### **PROVISIONS**

- 1. **TIMING LIMITATIONS:** The project may begin **Immediately** and shall be completed by **September 30, 2003**, provided:
  - a. Work below the ordinary high water line shall only occur between **July 1** and **September 30** of calendar years **2001, 2002 and 2003**.
- 2. NOTIFICATION REQUIREMENT: The permittee or contractor shall notify the Area Habitat Biologist (AHB) listed below of the project start date. Notification shall be received by the AHB at least three working days prior to the start of construction activities. The notification shall include the permittee's name, project location, starting date for work, and the control number for this Hydraulic Project Approval.
- 3. Work shall conform to plans and specifications received by the Washington Department of Fish and Wildlife on the Forest Practices Application (FP2508159), except as modified by this Hydraulic Project Approval.
- 4. Trees shall not be felled into or across a stream with identifiable streambed or banks except as set out in Provisions 15 and 16.
- 5. There shall be no skidding, or ground lead yarding or equipment operation within or across Type 1-3 waters or Type 4-5 waters within 1/4 mile of a Type 1-3 stream.
- 6. When changing tailholds, the cable shall be moved around or over the riparian vegetation to avoid damage to the vegetation. The number of yarding corridors shall be kept to a minimum. Tailholds shall be of sufficient height to minimize damage to riparian vegetation.

# Reshington Department of FISH and WILDLIFE

### H & DRAULIC PROJECT APPRO \ AL RCW 77.55.100 - appeal pursuant to Chapter 34.05 RCW

State of Washington Department of Fish and Wildlife Region 6 Office 48 Devonshire Road Montesano, Washington 98563-9618

DATE OF ISSUE: July 17, 2001

**LOG NUMBER: 25-08159-02** 

- 7. Cable corridors must be no wider or more numerous than necessary to accommodate safe and efficient transport of logs.
- 8. Cable corridors shall be located no closer to each other than 150 feet (measured edge to edge) and shall be no wider than 30 feet.
- 9. Total openings resulting from yarding corridors must not exceed 20% of the stream length associated with the forest practices application.
- 10. If as a result of felling and yarding of timber, limbs or other small debris enter a stream with identifiable stream bed or banks, they shall be removed concurrently with each tailhold change or within 72 hours after entry into the stream and placed outside the 100-year flood plain. Limbs or other small debris shall be removed from dry streams prior to the normal onset of high flows. Large woody material which was in place prior to felling and yarding of timber shall not be disturbed.
- 11. Precautions shall be taken to minimize the release of sediment to waters downstream from the felling or yarding activity. Sediment control devices, including but not limited to, straw bales and filter fabric check dams, shall be used as necessary to avoid the release of sediment downstream. Accumulated sediment shall be removed from above check dams prior to their removal.
- 12. Within seven days from project completion, bare or disturbed soils which may deliver sediment to Type 1-5 waters shall be stabilized with grass seed, straw, hydro mulch, check dams, cross drains, etc.

### SPECIFIC CONDITIONS FOR PROJECT ACTIVITIES WITHIN OR ACROSS TYPE 1-3 WATERS:

- 13. Year-round work in this stream shall be restricted to the placement of cable tailholds across the stream, yarding logs away from the stream, and removal of incidental limby debris from the stream. No logs may be yarded over the stream.
- 14. Trees shall be directionally felled away from Type 1-3 waters.
- 15. During felling and yarding, trees or logs which enter a Type 1-3 water shall remain where they enter.

SPECIFIC CONDITIONS FOR PROJECT ACTIVITIES WITHIN OR ACROSS APPLICABLE TYPE 4-5 WATERS:

16. Where feasible, timber shall be directionally felled away from Type 4-5 streams within 1/4 mile of a Type 1-3 stream. Trees which cannot be safely felled away from the stream or which roll into the stream shall be fully suspended before yarding.

# Mashington Department of FISH and WILDLIFE

### HYDRAULIC PROJECT APPROVAL RCW 77.55.100 - appeal pursuant to Chapter 34.05 RCW

State of Washington
Department of Fish and Wildlife
Region 6 Office
48 Devonshire Road
Montesano, Washington 98563-9618

DATE OF ISSUE: July 17, 2001

**LOG NUMBER: 25-08159-02** 

- 17. Logs transported across Type 4-5 waters within 1/4 mile of a Type 1-3 stream shall be fully suspended so no portion of the logs or limbs can enter the stream or damage the streambed or banks. If full suspension cannot be achieved on Type 4 and 5 waters due to topography or other operational constraints, an on-site mitigation plan is to be reviewed and approved by the AHB prior to any logging activities.
- 18. To ensure channel stability, trees that enter the stream as a result of natural events shall be left in place.
- 19. Equipment used for this project may operate below the ordinary high water line, provided the drive mechanisms (wheels, tracks, tires, etc.) shall not enter or operate below the ordinary high water line.
- 20. Equipment used for this project shall be free of external petroleum-based products while working around the stream. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to its working below the ordinary high water line. Equipment shall be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities along the stream.
- 21. Culvert replacement shall be conducted in the dry or in isolation from stream flow by the installation of a bypass to divert the stream flow around the work area, or by pumping the water around the work area. Bypassing the stream flow around the work area is the preferred method. Pumping may be used if bypassing the stream is not a viable option.
- 22. Erosion control methods shall be used to prevent silt-laden water from entering the stream. These may include, but are not limited to, straw bales, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas.
- 23. Prior to starting work, temporary filter fabric, straw bale, or pea gravel-filled burlap bag check dam(s) shall be installed downstream and around the work site on the bridge and culvert installations. Accumulated sediments shall be removed during the project and prior to removing the check dam(s) after completion of work.
- 24. Wastewater from project activities and water removed from within the work area shall be routed to an area landward of the ordinary high water line to allow removal of fine sediment and other contaminants prior to being discharged to the stream.
- 25. All waste material such as debris, silt, excess dirt, or overburden resulting from this project shall be deposited above the limits of flood water in an approved upland disposal site.
- 26. If high flow conditions that may cause siltation are encountered during this project, work shall stop until the flow subsides.
- 27. The temporary bypass to divert flow around the work area shall be in place prior to initiation of other work in the wetted perimeter.
- 28. A sandbag revetment or similar device shall be installed at the bypass inlet to divert the entire flow through the bypass.

# Reakington Department of FISH and WILDLIFE

### H\ DRAULIC PROJECT APPRO\ AL RCW 77.55.100 - appeal pursuant to Chapter 34.05 RCW

State of Washington
Department of Fish and Wildlife
Region 6 Office
48 Devonshire Road
Montesano, Washington 98563-9618

DATE OF ISSUE: July 17, 2001

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- 29. A sandbag revetment or similar device shall be installed at the downstream end of the bypass to prevent backwater from entering the work area.
- 30. The bypass shall be of sufficient size to pass all flows and debris for the duration of the project.
- 31. Any device used for diverting water from a fish-bearing stream shall be equipped with a fish guard to prevent passage of fish into the diversion device pursuant to RCW 77.55.040 and 77.16.220. The pump intake shall be screened with 1/8-inch mesh to prevent fish from entering the system. The screened intake shall consist of a facility with enough surface area to ensure that the velocity through the screen is less than 0.4 feet per second. Screen maintenance shall be adequate to prevent injury or entrapment to juvenile fish and the screen shall remain in place whenever water is withdrawn from the stream through the pump intake.
- 32. Prior to releasing the water flow to the project area, all bank protection or armoring shall be completed.
- 33. Upon completion of the project, all material used in the temporary bypass shall be removed from the site and the site returned to preproject or improved conditions.
- 34. The permittee shall capture and safely move food fish, game fish, and other fish life from the job site. The permittee shall have fish capture and transportation equipment ready and on the job site. Captured fish shall be immediately and safely transferred to free-flowing water downstream of the project site. The permittee may request the Washington Department of Fish and Wildlife assist in capturing and safely moving fish life from the job site to free-flowing water, and assistance may be granted if personnel are available.
- 35. Excavation for the footings for the bridge shall be completely separated from the stream by placing the footings landward of the top of the bank.
- 36. The bridge structure shall be placed in a manner to minimize damage to the streambed and banks.
- 37. The bridge shall be constructed to pass the 100-year peak flow with consideration of debris likely to be encountered.
- 38. Abutments, piers, piling, sills, approach fills, etc., shall not constrict the flow and cause any appreciable increase (not to exceed 0.2 feet) in backwater elevation (calculated at the 100-year flood) or channel-wide scour, and shall be aligned to cause the least effect on the hydraulics of the stream.
- 39. Riprap materials used for structure protection shall be clean, angular rock, which shall be installed to withstand the 100-year peak flow.
- 40. Structures containing concrete shall be sufficiently cured prior to contact with water to avoid leaching. Fresh concrete shall not be allowed to come into contact with state waters.
- 41. Wheel guards shall be installed and maintained to prevent sediment and debris from entering the stream.
- 42. All earth and roadbed material shall be removed prior to removal of the old culvert.

# Reshington Department of FISH and WILDLIFE

### H\ JRAULIC PROJECT APPRO\..L RCW 77.55.100 - appeal pursuant to Chapter 34.05 RCW

State of Washington
Department of Fish and Wildlife
Region 6 Office
48 Devonshire Road
Montesano, Washington 98563-9618

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- 43. The culvert shall be installed and maintained to ensure unimpeded fish passage.
- 44. The culvert shall be placed on a flat gradient with the bottom of the culvert placed below the level of the streambed a minimum of 20 percent of the culvert diameter for a round culvert, and 20 percent of the culvert's rise for an elliptical culvert. The 20 percent placement below the streambed shall be measured at the culvert outlet.
- 45. The culvert width at the streambed shall be equal to or greater than the average width of the streambed.
- 46. The culvert shall be installed to maintain structural integrity to the 100-year peak flow with consideration of the debris likely to be encountered.
- 47. Fill associated with the culvert installation shall be protected from erosion to the 100-year peak flow.
- 48. The culvert shall be installed and maintained to avoid inlet scouring and to prevent erosion of stream banks downstream of the project.
- 49. The culvert facility shall be maintained by the owner(s) per RCW 77.55.060 to ensure continued, unimpeded fish passage. If the structure becomes a hindrance to fish passage, the owner(s) shall be responsible for obtaining an Hydraulic Project Approval and providing prompt repair. Financial responsibility for maintenance and repairs shall be that of the owner(s).
- 50. The culvert shall consist of a single barrel.
- 51. Approach material shall be structurally stable and be composed of material that, if eroded into the stream, shall not be detrimental to fish life.
- 52. All disturbed bed and bank areas shall be reshaped and revegetated. Within seven calendar days of project completion, all disturbed areas shall be protected from erosion using vegetation or other means. Within one year of project completion, the banks shall be revegetated with native or other approved woody species. Revegetation shall provide both short term riparian functions (e.g. using fast growing species such as willow, alder, cottonwood, elderberry, snowberry, etc.) and long term riparian function (i.e. shade, LWD recruitment, bank protection). Vegetative cuttings shall be maintained as necessary for three years to ensure 80 percent survival.
- 53. If at any time, as a result of project activities, fish are observed in distress, a fish kill occurs, or water quality problems develop (including equipment leaks or spills), operations shall cease and the Washington Department of Fish and Wildlife at (360) 902-2537 and Washington Department of Ecology at (360) 407-6300 shall be contacted immediately. Work shall not resume until further approval is given by the Washington Department of Fish and Wildlife.

**SEPA:** DNS by Dept. Of Natural Resources final on June 25, 2001.

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### H. DRAULIC PROJECT APPRO AL RCW 77.55.100 - appeal pursuant to Chapter 34.05 RCW

State of Washington Department of Fish and Wildlife Region 6 Office 48 Devonshire Road Montesano, Washington 98563-9618

**DATE OF ISSUE:** July 17, 2001

**LOG NUMBER: 25-08159-02** 

**APPLICATION ACCEPTED:** June 28, 2001

**ENFORCEMENT OFFICER:** Sgt. DeMiero (033)

[P2]

Debbie D. Carnevali Area Habitat Biologist (360) 264-5148

Deffie D. Carnevali

for Director WDFW

cc: Kris Knutzen, DNR, Central Region, 1405 Rush Road, Chehalis, WA 98532

#### **GENERAL PROVISIONS**

This Hydraulic Project Approval (HPA) pertains only to the provisions of the Fisheries Code (RCW 77.55 - formerly RCW 75.20). Additional authorization from other public agencies may be necessary for this project.

This HPA shall be available on the job site at all times and all its provisions followed by the permittee and operator(s) performing the work.

This HPA does not authorize trespass.

The person(s) to whom this HPA is issued may be held liable for any loss or damage to fish life or fish habitat which results from failure to comply with the provisions of this HPA.

Failure to comply with the provisions of this Hydraulic Project Approval could result in a civil penalty of up to one hundred dollars per day or a gross misdemeanor charge, possibly punishable by fine and/or imprisonment.

All HPAs issued pursuant to RCW 77.55.100 or 77.55.200 are subject to additional restrictions, conditions or revocation if the Department of Fish and Wildlife determines that new biological or physical information indicates the need for such action. The permittee has the right pursuant to Chapter 34.04 RCW to appeal such decisions. All HPAs issued pursuant to RCW 77.55.110 may be modified by the Department of Fish and Wildlife due to changed conditions after consultation with the permittee: PROVIDED HOWEVER, that such modifications shall be subject to appeal to the Hydraulic Appeals Board established in RCW 77.55.170.

#### **APPEALS - GENERAL INFORMATION**

IF YOU WISH TO APPEAL A DENIAL OF OR CONDITIONS PROVIDED IN A HYDRAULIC PROJECT APPROVAL, THERE ARE INFORMAL AND FORMAL APPEAL PROCESSES AVAILABLE.

A. INFORMAL APPEALS (WAC 220-110-340) OF DEPARTMENT ACTIONS TAKEN PURSUANT TO RCW 77.55.100, 77.55.110, 77.55.140, 77.55.190, 77.55.200, and 77.55.290:

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### HADRAULIC PROJECT APPROVAL

RCW 77.55.100 - appeal pursuant to Chapter 34.05 RCW

State of Washington Department of Fish and Wildlife Region 6 Office 48 Devonshire Road Montesano, Washington 98563-9618

DATE OF ISSUE: July 17, 2001

**LOG NUMBER: 25-08159-02** 

A person who is aggrieved or adversely affected by the following Department actions may request an informal review

- The denial or issuance of a HPA, or the conditions or provisions made part of a HPA; or (A)
- (B) An order imposing civil penalties.

It is recommended that an aggrieved party contact the Area Habitat Biologist and discuss the concerns. Most problems are resolved at this level, but if not, you may elevate your concerns to his/her supervisor. A request for an INFORMAL REVIEW shall be in WRITING to the Department of Fish and Wildlife, 600 Capitol Way North, Olympia, Washington 98501-1091 and shall be RECEIVED by the Department within 30-days of the denial or issuance of a HPA or receipt of an order imposing civil penalties. The 30-day time requirement may be stayed by the Department if negotiations are occurring between the aggrieved party and the Area Habitat Biologist and/or his/her supervisor. The Habitat Protection Services Division Manager or his/her designee shall conduct a review and recommend a decision to the Director or its designee. If you are not satisfied with the results of this informal appeal, a formal appeal may be filed.

B. FORMAL APPEALS (WAC 220-110-350) OF DEPARTMENT ACTIONS TAKEN PURSUANT TO RCW 77.55.100 OR 77.55.140:

A person who is aggrieved or adversely affected by the following Department actions may request an formal review of:

- (A) The denial or issuance of a HPA, or the conditions or provisions made part of a HPA;
- (B) An order imposing civil penalties; or
- (C) Any other "agency action" for which an adjudicative proceeding is required under the Administrative Procedure Act, Chapter 34.05 RCW.

A request for a FORMAL APPEAL shall be in WRITING to the Department of Fish and Wildlife, 600 Capitol Way North, Olympia, Washington 98501-1091, shall be plainly labeled as "REQUEST FOR FORMAL APPEAL" and shall be RECEIVED DURING OFFICE HOURS by the Department within 30-days of the Department action that is being challenged. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, the deadline for requesting a formal appeal shall be within 30-days of the date of the Department's written decision in response to the informal appeal.

C. FORMAL APPEALS OF DEPARTMENT ACTIONS TAKEN PURSUANT TO RCW 77.55.110, 77.55.200, 77.55.230, or 77.55.290:

A person who is aggrieved or adversely affected by the denial or issuance of a HPA, or the conditions or provisions made part of a HPA may request a formal appeal. The request for FORMAL APPEAL shall be in WRITING to the Hydraulic Appeals Board per WAC 259-04 at Environmental Hearings Office, 4224 Sixth Avenue SE, Building Two -Rowe Six, Lacey, Washington 98504; telephone 360/459-6327.

D. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS RESULTS IN FORFEITURE OF ALL APPEAL RIGHTS. IF THERE IS NO TIMELY REQUEST FOR AN APPEAL, THE DEPARTMENT ACTION SHALL BE FINAL AND UNAPPEALABLE.1